

Gata-3 Monoclonal Antibody (TWAJ), PE,
 eBioscience™

Catalog Number 12-9966-42

Product data sheet

Details	
Size	100 Tests
Host/Isotope	Rat / IgG2b, kappa
Class	Monoclonal
Type	Antibody
Clone	TWAJ
Conjugate	PE
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.2% BSA
Contains	0.09% sodium azide
Storage Conditions	4° C, store in dark, DO NOT FREEZE!

Species Reactivity	
Species reactivity	Human, Mouse, Pig, Rhesus monkey
Published species	Mouse, Human
Tested Applications	Dilution *
Flow Cytometry (Flow)	5 µL (0.06 µg)/test
Published Applications	
Flow Cytometry (Flow)	See 57 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

Description: The monoclonal antibody TWAJ recognizes mouse and human Gata-3, a member of the Gata family of transcription factors. Gata-3 is a T cell-specific transcription factor important for thymic development and Th2 differentiation. Expression during embryonic development is found in the central nervous system, skin, mammary glands and kidney. During development, the expression of Gata-3 is essential as homozygous knock-out of Gata-3 is embryonic lethal. The Gata-3 is also essential for T cell commitment and survival. In the thymus, expression is found mainly on the CD4 single positive cells. During Th2 differentiation, Gata-3 binds to the IL-4 promoter as well as represses the expression of T-bet, thus inhibiting Th1 differentiation. Alternative splice variants have been reported especially in the MCF7 cell line. The TWAJ Human/Mouse Gata-3 antibody will recognize both forms (50 and 45 kDa) of the protein. Staining with the TWAJ Human/Mouse Gata-3 antibody requires the use of the Fcγ3/Transcription Factor Staining Buffer Set.(Product # 00-5523-00) Crossreactivity in rhesus monkeys has been published. Applications Reported: This TWAJ antibody has been reported for use in intracellular staining followed by flow cytometric analysis. Applications Tested: This TWAJ antibody has been pre-titrated and tested by intracellular staining and flow cytometric analysis of mouse thymocytes using the Fcγ3/Transcription Factor Staining Buffer Set (Product # 00-5523) and protocol. Please see Best Protocols Section (Staining Intracellular Antigens for Flow Cytometry) for staining protocol (refer to Protocol B: One-step protocol for intracellular (nuclear) proteins). This can be used at 5 µL (0.06 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. Excitation: 488-561 nm; Emission: 578 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser. Filtration: 0.2 µm post-manufacturing filtered.

Background/Target Information

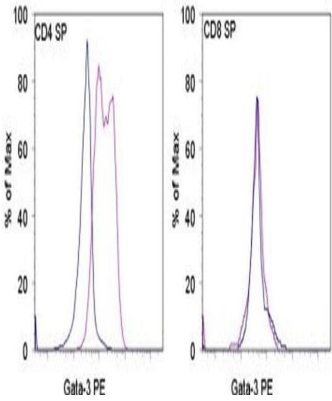
The genes for all 4 subunits of the T-cell antigen receptor (alpha, beta, gamma and delta) are controlled by distinct enhancers and their enhancer-binding proteins. Marine and Winoto (1991) identified a common TCR regulatory element by demonstrating binding of the enhancer-binding protein GATA3 to the enhancer elements of all 4 TCR genes. GATA3 had been shown in the chicken to be an enhancer-binding protein containing a zinc finger domain. GATA3 mRNA was demonstrated by Northern blot analysis in T cells but not in B cells or macrophages. GATA3 is abundantly expressed in the T-lymphocyte lineage and is thought to participate in T-cell receptor gene activation through binding to enhancers. Labastie et al. (1994) cloned the human gene and the 5-prime end of the mouse gene. The human gene comprises 6 exons distributed over 17 kb of DNA. Its 2 zinc fingers are encoded by 2 separate exons highly conserved with those of GATA1, but no other structural homologies between the 2 genes could be found.

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.



Gata-3 Antibody (12-9966-42) in Flow

Staining of CD4 (Product # 11-0041-82) single positive (left) and CD8 (Product # 45-0081-82) single positive (right) BALB/c thymocytes using the Fcγ3 Staining Buffer Set (Product # 00-5523-00) with Rat IgG2b K Isotype Control PE (Product # 12-4031-82) (blue histogram) or Anti-Human/Mouse Gata-3 PE (purple histogram).

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

57 Flow Cytometry References

Species / Dilution	Summary
	<p>12-9966-42 was used in Flow cytometry/Cell sorting to demonstrate that Treg depletion in wounds facilitates the expansion of an T-cell population with features of Th1 and Th2 cells, and suggest that concomitant changes in the cytokine milieu disturb the healing process.</p>
Mouse / 1:100	<p>European journal of immunology (2018; 48: 1001) "Regulatory T cells are required for normal and activin-promoted wound repair in mice." Author(s):Haertel E,Joshi N,Hiebert P,Kopf M,Werner S PubMed Article URL:http://dx.doi.org/10.1002/eji.201747395</p>
	<p>12-9966 was used in Flow cytometry/Cell sorting to identify genetic, cellular, and immunological mechanisms that define response and failure to vedolizumab treatment.</p>
Human / Not Cited	<p>Frontiers in immunology (2019; 9:) "Effects of Anti-Integrin Treatment With Vedolizumab on Immune Pathways and Cytokines in Inflammatory Bowel Diseases." Author(s):Rath T,Billmeier U,Ferrazzi F,Vieth M,Ekici A,Neurath MF,Atreya R PubMed Article URL:http://dx.doi.org/10.3389/fimmu.2018.01700</p>
	<p>12-9966 was used in Flow Cytometry to indicate that the VHL-HIF-glycolysis axis is essential for the late-stage maturation and function of ILC2s via targeting IL-33-ST2 pathway.</p>
Mouse / Not Cited	<p>Immunity (2018; 48: 258) "E3 Ligase VHL Promotes Group 2 Innate Lymphoid Cell Maturation and Function via Glycolysis Inhibition and Induction of Interleukin-33 Receptor." Author(s):Li Q,Li D,Zhang X,Wan Q,Zhang W,Zheng M,Zou L,Elly C,Lee JH,Liu YC PubMed Article URL:http://dx.doi.org/10.1016/j.immuni.2017.12.013</p>
	<p>12-9966-42 was used in Flow cytometry/Cell sorting to investigate if eosinophils, but not ILC2, are a major innate source of IL-4 at the skin site of L. major infection.</p>
Mouse / Not Cited	<p>Pathogens (Basel, Switzerland) (2022; 11:) "Eosinophils, but Not Type 2 Innate Lymphoid Cells, Are the Predominant Source of Interleukin 4 during the Innate Phase of <i>Leishmania major</i> Infection." Author(s):Sasse C,Barinberg D,Obermeyer S,Debus A,Schleicher U,Bogdan C PubMed Article URL:http://dx.doi.org/10.3390/pathogens11080828</p>
	<p>12-9966 was used in Flow cytometry/Cell sorting to investigate the role of TNF/TNFR2 axis in pulmonary ILC2s for possible use in treating ILC2-dependent asthma, in murine and human subjects.</p>
Mouse / Not Cited	<p>Cell reports (2019; 29: 4509) "TNFR2 Signaling Enhances ILC2 Survival, Function, and Induction of Airway Hyperreactivity." Author(s):Hurrell BP,Galle-Treger L,Jahani PS,Howard E,Helou DG,Banie H,Soroosh P,Akbari O PubMed Article URL:http://dx.doi.org/10.1016/j.celrep.2019.11.102</p>
	<p>12-9966 was used in Flow cytometry/Cell sorting to show homeostasis of thymically-derived and peripherally-derived Treg cells is maintained through the balancing of TCR signaling induced transcriptional activity by Bach2.</p>
Mouse / 1:50	<p>Nature communications (2020; 11:) "Attenuation of TCR-induced transcription by Bach2 controls regulatory T cell differentiation and homeostasis." Author(s):Sidwell T,Liao Y,Garnham AL,Vasanthakumar A,Gloury R,Blume J,Teh PP,Chisanga D,Thelemann C,de Labastida Rivera F,Engwerda CR,Corcoran L,Kometani K,Kurosaki T,Smyth GK,Shi W,Kallies A PubMed Article URL:http://dx.doi.org/10.1038/s41467-019-14112-2</p>
	<p>12-9966 was used in Flow cytometry/Cell sorting to examine whether Alternaria, an aeroallergen specifically associated with severe asthma, induces a unique innate immune response compared with other allergens in mice.</p>
Mouse / Not Cited	<p>American journal of physiology. Lung cellular and molecular physiology (2012; 303: L577) "STAT6 regulates natural helper cell proliferation during lung inflammation initiated by Alternaria." Author(s):Doherty TA,Khorram N,Chang JE,Kim HK,Rosenthal P,Croft M,Broide DH PubMed Article URL:http://dx.doi.org/10.1152/ajplung.00174.2012</p>
	<p>12-9966 was used in Flow cytometry/Cell sorting to investigate the role of GATA3 in type 2 innate lymphoid cells.</p>
Human / Not Cited	<p>Immunity (2012; 37: 649) "The transcription factor GATA3 is essential for the function of human type 2 innate lymphoid cells." Author(s):Mjösberg J,Bernink J,Golebski K,Karrich JJ,Peters CP,Blom B,te Velde AA,Fokkens WJ,van Drunen CM,Spits H PubMed Article URL:http://dx.doi.org/10.1016/j.immuni.2012.08.015</p>

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

	12-9966 was used in Flow cytometry/Cell sorting to determine the contribution of cytokines and basophils for protective immunity against <i>S. mansoni</i> egg-induced pathology.
Mouse / Not Cited	Journal of immunology (Baltimore, Md. : 1950) (2014; 193: 3590) "T cell-derived IL-4/IL-13 protects mice against fatal <i>Schistosoma mansoni</i> infection independently of basophils." Author(s):Schwartz C,Oeser K,Prazeres da Costa C,Layland LE,Voehringer D PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1401155
Human / Not Cited	European journal of immunology (2015; 45: 1772) "The immunosuppressive enzyme IL411 promotes FoxP3(+) regulatory T lymphocyte differentiation." Author(s):Cousin C,Aubatin A,Le Gouvello S,Apetoh L,Castellano F,Molinier-Frenkel V PubMed Article URL: http://dx.doi.org/10.1002/eji.201445000
Mouse / Not Cited	12-9966 was used in Flow cytometry/Cell sorting to study how ILC2s can regulate adipose function and metabolic homeostasis. Nature (2015; 519: 242) "Group 2 innate lymphoid cells promote beiging of white adipose tissue and limit obesity." Author(s):Brestoff JR,Kim BS,Saenz SA,Stine RR,Monticelli LA,Sonnenberg GF,Thome JJ,Farber DL,Lutfy K,Seale P, Artis D PubMed Article URL: http://dx.doi.org/10.1038/nature14115
Human / Not Cited	12-9966 was used in Flow cytometry/Cell sorting to suggest that adaptation in signaling pathways protect Treg cell identity and present a resource for further research into Treg cell biology. Immunity (2018; 48: 1046) "Proteomic Analyses of Human Regulatory T Cells Reveal Adaptations in Signaling Pathways that Protect Cellular Identity." Author(s):Cuadrado E,van den Biggelaar M,de Kivit S,Chen YY,Slot M,Doubal I,Meijer A,van Lier RAW,Borst J,Amsen D PubMed Article URL: http://dx.doi.org/10.1016/j.immuni.2018.04.008
Mouse / Not Cited	12-9966 was used in Flow cytometry/Cell sorting to investigate the regulation of murine dendritic cell cytotoxic functions by T lymphocytes. Journal of immunology (Baltimore, Md. : 1950) (2011; 187: 6310) "Th-1 lymphocytes induce dendritic cell tumor killing activity by an IFN--dependent mechanism." Author(s):LaCasse CJ,Janikashvili N,Larmonier CB,Alizadeh D,Hanke N,Kartchner J,Situ E,Centuori S,Har-Noy M, Bonnotte B,Katsanis E,Larmonier N PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1101812
Human / Not Cited	12-9966 was used in Flow cytometry/Cell sorting to indicate that barrier functioning cells and the cytokine IL-33 are important for the regulation of IL-9 production by immune cells in inflamed tissue. PloS one (2011; 6:) "IL-33 induces IL-9 production in human CD4+ T cells and basophils." Author(s):Blom L,Poulsen BC,Jensen BM,Hansen A,Poulsen LK PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0021695
Human / Not Cited	12-9966 was used in Flow cytometry/Cell sorting to provide initial evidence that elevated frequencies of Th17 and Th2 cells form part of the immune network instigating the development of severe onchocerciasis. PLoS neglected tropical diseases (2015; 9:) "Hyperreactive onchocerciasis is characterized by a combination of Th17-Th2 immune responses and reduced regulatory T cells." Author(s):Katawa G,Layland LE,Debrah AY,von Horn C,Batsa L,Kwarteng A,Arriens S,W Taylor D,Specht S,Hoerauf A, Adjomey T PubMed Article URL: http://dx.doi.org/10.1371/journal.pntd.0003414
Mouse / 1:100	12-9966 was used in Flow cytometry/Cell sorting to investigate the phenotype of spinal cord-infiltrating CD4+ T lymphocytes involved in the maintenance of neuropathic pain in a murine model. Journal of pain & relief (2014; Suppl 3:) "Phenotypic Identification of Spinal Cord-Infiltrating CD4<sup>+</sup> T Lymphocytes in a Murine Model of Neuropathic Pain." Author(s):Draeau K,Maddula S,Slaiby A,Nutile-McMenemy N,De Leo J,Cao L PubMed Article URL: http://dx.doi.org/10.4172/2167-0846.S3-003
Human / Not Cited	12-9966 was used in Flow cytometry/Cell sorting to characterise GM-CSF production by T cells of MS patients and to determine the effect of IFN- therapy on its production. Journal of immunology (Baltimore, Md. : 1950) (2015; 194: 5085) "Expression of GM-CSF in T Cells Is Increased in Multiple Sclerosis and Suppressed by IFN- Therapy." Author(s):Rasouli J,Ciric B,Imitola J,Gonnella P,Hwang D,Mahajan K,Mari ER,Safavi F,Leist TP,Zhang GX,Rostami A PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1403243

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

	<p>12-9966 was used in Flow cytometry/Cell sorting to study the exact identity and role of the F4/80-CD11b+Gr+ cells accumulating around encysting larvae in intestinal tissue during primary Heligmosomoides polygyrus bakeri infection in mice.</p>
Human / Not Cited	<p>Mucosal immunology (2017; 10: 238) "Primary Heligmosomoides polygyrus bakeri infection induces myeloid-derived suppressor cells that suppress CD4<sup>+</sup> Th2 responses and promote chronic infection." Author(s):Valanparambil RM,Tam M,Jardim A,Geary TG,Stevenson MM PubMed Article URL:http://dx.doi.org/10.1038/mi.2016.36</p>
Mouse / Not Cited	<p>12-9966 was used in Flow cytometry/Cell sorting to reveal a protective role of Ets1 in restricting pathogenic Th cell responses and suggest a potential therapeutic target for atopic dermatitis (AD) treatment.</p> <p>JCI insight (2019; 4:) "Ets1 suppresses atopic dermatitis by suppressing pathogenic T cell responses." Author(s):Lee CG,Kwon HK,Kang H,Kim Y,Nam JH,Won YH,Park S,Kim T,Kang K,Rudra D,Jun CD,Park ZY,Im SH PubMed Article URL:http://dx.doi.org/10.1172/jci.insight.124202</p>
Mouse / Not Cited	<p>12-9966-42 was used in Flow cytometry/Cell sorting to suggest that HIF-1 shapes the ILC phenotype in the gut.</p> <p>The Journal of experimental medicine (2022; 219:) "The transcription factor HIF-1 mediates plasticity of NKp46+ innate lymphoid cells in the gut." Author(s):Krzywinska E,Sobecki M,Nagarajan S,Zacharjasz J,Tambuwalla MM,Pelletier A,Cummins E,Gotthardt D,Fandrey J,Kerdiles YM,Peyssonnaud C,Taylor CT,Sexl V,Stockmann C PubMed Article URL:http://dx.doi.org/10.1084/jem.20210909</p>
Mouse / Not Cited	<p>12-9966 was used in Flow cytometry/Cell sorting to show that ILC2 appeared in multiple organs during lat gestation like tissue macrophages, but, unlike the latter, a majority of peripheral ILC2 pools were generated de novo during the postnatal window.</p> <p>Immunity (2019; 50: 1425) "Tissue-Resident Group 2 Innate Lymphoid Cells Differentiate by Layered Ontogeny and In Situ Perinatal Priming." Author(s):Schneider C,Lee J,Koga S,Ricardo-Gonzalez RR,Nussbaum JC,Smith LK,Villeda SA,Liang HE,Locksley RM PubMed Article URL:http://dx.doi.org/10.1016/j.immuni.2019.04.019</p>
Mouse / Not Cited	<p>12-9966 was used in Flow cytometry/Cell sorting to point to a proinflammatory role for -arr2-dependent signaling and support -arr2 as a novel therapeutic target in asthma.</p> <p>American journal of respiratory cell and molecular biology (2018; 58: 745) "Arrestin-2-Dependent Signaling Promotes CCR4-mediated Chemotaxis of Murine T-Helper Type 2 Cells." Author(s):Lin R,Choi YH,Zidar DA,Walker JKL PubMed Article URL:http://dx.doi.org/10.1165/rcmb.2017-0240OC</p>
Mouse / Not Cited	<p>12-9966 was used in Flow cytometry/Cell sorting to elucidate the molecular mechanism by which gene expression pattern is altered in T(h)1 cells in response to IL-18, showing that Gata3 is required for this altered gene expression.</p> <p>International immunology (2011; 23: 761) "Requirement of GATA-binding protein 3 for Il13 gene expression in IL-18-stimulated Th1 cells." Author(s):Nakahira M,Nakanishi K PubMed Article URL:http://dx.doi.org/10.1093/intimm/dxr087</p>
Mouse / Not Cited	<p>12-9966 was used in Flow cytometry/Cell sorting to compare the efficacy of budesonide or different doses of galacto-oligosaccharides alone or with a combination therapy of budesonide and galacto-oligosaccharides on house dust mite-allergic responses in mice.</p> <p>Frontiers in immunology (2019; 9:) "The Combination Therapy of Dietary Galacto-Oligosaccharides With Budesonide Reduces Pulmonary Th2 Driving Mediators and Mast Cell Degranulation in a Murine Model of House Dust Mite Induced Asthma." Author(s):Verheijden KAT,Braber S,Leusink-Muis T,Jeurink PV,Thijssen S,Kraneveld AD,Garssen J,Folkerts G,Willemsen LEM PubMed Article URL:http://dx.doi.org/10.3389/fimmu.2018.02419</p>
Mouse / Not Cited	<p>12-9966 was used in Flow cytometry/Cell sorting to demonstrate the unique protein composition of the S. mansoni male worm secretome and immunomodulatory activity of S. mansoni Cyclophilin A.</p> <p>PLoS neglected tropical diseases (2017; 11:) "Composition of the Schistosoma mansoni worm secretome: Identification of immune modulatory Cyclophilin A." Author(s):Floudas A,Cluxton CD,Fahel J,Khan AR,Saunders SP,Amu S,Alcami A,Fallon PG PubMed Article URL:http://dx.doi.org/10.1371/journal.pntd.0006012</p>

	12-9966 was used in Flow cytometry/Cell sorting to develop an in vitro model of T cell differentiation suited to testing how manipulation of components of the microenvironment might be therapeutically exploited.
Mouse / Not Cited	Frontiers in immunology (2022; 9:) "CD4<sup>+</sup> T Cell Fate Decisions Are Stochastic, Precede Cell Division, Depend on GITR Co-Stimulation, and Are Associated With Uropodium Development." Author(s):Cobbold SP,Adams E,Howie D,Waldmann H PubMed Article URL: http://dx.doi.org/10.3389/fimmu.2018.01381
	12-9966 was used in Flow cytometry/Cell sorting to show that an application of cyclophosphamide supported by dendritic cell based vaccines affected differentiation of the activity of CD4+ T cell subpopulations accompanied by an alteration in CD8+ cell number.
Mouse / Not Cited	International journal of oncology (2016; 48: 493) "Treatment with cyclophosphamide supported by various dendritic cell-based vaccines induces diversification in CD4 T cell response against MC38 colon carcinoma." Author(s):Wojas-Turek J,Szczygie A,Kicieliska J,Rossowska J,Piasecki E,Pajtasz-Piasecka E PubMed Article URL: http://dx.doi.org/10.3892/ijo.2015.3278
	12-9966 was used in Flow cytometry/Cell sorting to investigate if innate lymphoid cells, especially ILC2s, play a role in preterm brain injury.
Mouse / Not Cited	Frontiers in cellular neuroscience (2022; 14:) "Type 2 Innate Lymphoid Cells Accumulate in the Brain After Hypoxia-Ischemia but Do Not Contribute to the Development of Preterm Brain Injury." Author(s):Zelco A,Rocha-Ferreira E,Nazmi A,Ardalan M,Chumak T,Nilsson G,Hagberg H,Mallard C,Wang X PubMed Article URL: http://dx.doi.org/10.3389/fncel.2020.00249
	12-9966 was used in Flow cytometry/Cell sorting to identify and further characterize the cellular sources of IL-33 within visceral adipose tissue (VAT) and to determine how these cells correlate with local Tregs in diverse physiologic and pathologic states.
Mouse / Not Cited	Science immunology (2019; 4:) "Distinct immunocyte-promoting and adipocyte-generating stromal components coordinate adipose tissue immune and metabolic tenors." Author(s):Spallanzani RG,Zemmour D,Xiao T,Jayewickreme T,Li C,Bryce PJ,Benoist C,Mathis D PubMed Article URL: http://dx.doi.org/10.1126/sciimmunol.aaw3658
	12-9966 was used in Flow cytometry/Cell sorting to study how group 2 innate lymphoid cells regulate adaptive Th2 cell functions.
Mouse / Not Cited	The Journal of experimental medicine (2017; 214: 2507) "ILC2s regulate adaptive Th2 cell functions via PD-L1 checkpoint control." Author(s):Schwartz C,Khan AR,Floudas A,Saunders SP,Hams E,Rodewald HR,McKenzie ANJ,Fallon PG PubMed Article URL: http://dx.doi.org/10.1084/jem.20170051
	12-9966 was used in Flow cytometry/Cell sorting to demonstrate that IL-1 family "alarmins" IL-18 and IL-33, amplify Th1- and Th2-associated cytokines, and block IL-10 production in Th1 cultures.
Human / Not Cited	Journal of immunology (Baltimore, Md. : 1950) (2012; 189: 4331) "IL-1 family members IL-18 and IL-33 upregulate the inflammatory potential of differentiated human Th1 and Th2 cultures." Author(s):Blom L,Poulsen LK PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1103685
	12-9966 was used in Flow cytometry/Cell sorting to demonstrate that CD69 knockout can modulate mucosal CD4 T cells and increase colitis levels in a mouse transfer model of the disease.
Mouse / Not Cited	Journal of immunology (Baltimore, Md. : 1950) (2012; 188: 2001) "CD69 regulates type I IFN-induced tolerogenic signals to mucosal CD4 T cells that attenuate their colitogenic potential." Author(s):Radulovic K,Manta C,Rossini V,Holzmann K,Kestler HA,Wegenka UM,Nakayama T,Niess JH PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.1100765
	12-9966 was used in Flow cytometry/Cell sorting to show that, among effector T cell subsets, Th17 and Treg cells selectively expressed multiple components of the IGF system.
Mouse / Not Cited	Immunity (2020; 52: 650) "Insulin-Like Growth Factors Are Key Regulators of T Helper 17 Regulatory T Cell Balance in Autoimmunity." Author(s):DiToro D,Harbour SN,Bando JK,Benavides G,Witte S,Laufer VA,Moseley C,Singer JR,Frey B,Turner H,Bruning J,Darley-Usmar V,Gao M,Conover C,Hatton RD,Frank S,Colonna M,Weaver CT PubMed Article URL: http://dx.doi.org/10.1016/j.immuni.2020.03.013

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

12-9966-42 was used in Flow Cytometry to suggest that female ILC2s are more readily activated than male ILC2s due to their gene expression at the naïve state, which is potentially influenced by the lung environment.

Mouse / Not Cited

PloS one (2019; 14:)
"Female and male mouse lung group 2 innate lymphoid cells differ in gene expression profiles and cytokine production."
Author(s):Mathä L,Shim H,Steer CA,Yin YH,Martinez-Gonzalez I,Takei F
PubMed Article URL:<http://dx.doi.org/10.1371/journal.pone.0214286>

Mouse / Not Cited

12-9966 was used in Flow cytometry/Cell sorting to study how MSC treatment affects not only inflammatory responses but also significantly reduces dyslipidaemia in mice.

Scientific reports (2015; 5:)
"Mesenchymal Stem Cells Reduce Murine Atherosclerosis Development."
Author(s):Frödermann V,van Duijn J,van Pel M,van Santbrink PJ,Bot I,Kuiper J,de Jager SC
PubMed Article URL:<http://dx.doi.org/10.1038/srep15559>

Human / Not Cited

12-9966 was used in Flow cytometry/Cell sorting to study innate lymphoid cells in the human lung in healthy patients and those with chronic pulmonary disease.

PloS one (2016; 11:)
"Characterization and Quantification of Innate Lymphoid Cell Subsets in Human Lung."
Author(s):De Grove KC,Provoost S,Verhamme FM,Bracke KR,Joos GF,Maes T,Brusselle GG
PubMed Article URL:<http://dx.doi.org/10.1371/journal.pone.0145961>

Mouse / 1:200

12-9966-42 was used in Flow cytometry/Cell sorting to demonstrate a newly emerging role for AHR in mediating the interdependence between T lymphocytes and the microbiota, while simultaneously identifying new potential molecular targets for the treatment of MS and other autoimmune diseases.

PLoS biology (2023; 21:)
"The activity of the aryl hydrocarbon receptor in T cells tunes the gut microenvironment to sustain autoimmunity and neuroinflammation."
Author(s):Merchak AR,Cahill HJ,Brown LC,Brown RM,Rivet-Noor C,Beiter RM,Slogar ER,Olgun DG,Gaultier A
PubMed Article URL:<http://dx.doi.org/10.1371/journal.pbio.3002000>

Human / Not Cited

12-9966-42 was used in Flow cytometry/Cell sorting to provide the key aspects to consider when performing flow cytometry experiments.

European journal of immunology (2021; 51: 2708)
"Guidelines for the use of flow cytometry and cell sorting in immunological studies (third edition)."
Author(s):Cossarizza A,Chang HD,Radbruch A,Abrignani S,Addo R,Akdis M,Andrä I,Andreata F,Annunziato F,Arranz E, Bacher P,Bari S,Barnaba V,Barros-Martins J,Baumjohann D,Beccaria CG,Bernardo D,Boardman DA,Borger J,Böttcher C, Brockmann L,Burns M,Busch DH,Cameron G,Cammarata I,Cassotta A,Chang Y,Chirido FG,Christakou E,iin-Šain L,Cook L,Corbett AJ,Cornelis R,Cosmi L,Davey MS,De Biasi S,De Simone G,Del Zotto G,Delacher M,Di Rosa F,Di Santo J, Diefenbach A,Dong J,Dörner T,Dress RJ,Dutertre CA,Eckle SBG,Eede P,Evrard M,Falk CS,Feuerer M,Fillatreau S,Fiz-Lopez A,Follo M,Foulds GA,Fröbel J,Gagliani N,Galletti G,Gangaev A,Garbi N,Garrote JA,Geginat J,Gherardin NA, Gibellini L,Ginhoux F,Godfrey DI,Gruarin P,Haftmann C,Hansmann L,Harpur CM,Hayday AC,Heine G,Hernández DC, Herrmann M,Hoelsken O,Huang Q,Huber S,Huber JE,Huehn J,Hundemer M,Hwang WYK,Iannacone M,Ivison SM,Jäck HM,Jani PK,Keller B,Kessler N,Ketelaars S,Knop L,Knopf J,Koay HF,Kobow K,Kriegsmann K,Kristyanto H,Krueger A, Kuehne JF,Kunze-Schumacher H,Kvistborg P,Kwok I,Latorre D,Lenz D,Levings MK,Lino AC,Liotta F,Long HM,Lugli E, MacDonald KN,Maggi L>Maini MK,Mair F,Manta C,Manz RA,Mashreghi MF,Mazzoni A,McCluskey J,Mei HE,Melchers F, Melzer S,Mielenz D,Monin L,Moretta L,Multhoff G,Muñoz LE,Muñoz-Ruiz M,Muscate F,Natalini A,Neumann K,Ng LG, Niedobitek A,Niemz J,Almeida LN,Notarbartolo S,Ostendorf L,Pallett LJ,Patel AA,Percin GI,Peruzzi G,Pinti M,Pockley AG, Pracht K,Prinz I,Pujol-Autonell I,Pulvirenti N,Quatrini L,Quinn KM,Radbruch H,Rhys H,Rodrigo MB,Romagnani C,Saggau C,Sakaguchi S,Sallusto F,Sanderink L,Sandrock I,Schauer C,Scheffold A,Scherer HU,Schiemann M,Schildberg FA, Schober K,Schoen J,Schuh W,Schüler T,Schulz AR,Schulz S,Schulze J,Simonetti S,Singh J,Sitnik KM,Stark R,Starossom S,Stehle C,Szelinski F,Tan L,Tarnok A,Tornack J,Tree TIM,van Beek JJP,van de Veen W,van Gisbergen K,Vasco C, Verheyden NA,von Borstel A,Ward-Hartstonge KA,Warnatz K,Waskow C,Wiedemann A,Wilharm A,Wing J,Wirz O,Wittner J,Yang JHM,Yang J
PubMed Article URL:<http://dx.doi.org/10.1002/eji.202170126>

Mouse / 1:200

12-9966 was used in Flow cytometry/Cell sorting to present a collection of chemical probes and associated reagents and data to elucidate the function of human and murine protein methyltransferases in cellular studies.

Nature communications (2019; 10:)
"A chemical biology toolbox to study protein methyltransferases and epigenetic signaling."
Author(s):Scheer S,Ackloo S,Medina TS,Schapira M,Li F,Ward JA,Lewis AM,Northrop JP,Richardson PL,Kaniskan HÜ, Shen Y,Liu J,Smil D,McLeod D,Zepeda-Velazquez CA,Luo M,Jin J,Barsyte-Lovejoy D,Huber KVM,De Carvalho DD, Vedadi M,Zaph C,Brown PJ,Arrowsmith CH
PubMed Article URL:<http://dx.doi.org/10.1038/s41467-018-07905-4>

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

	<p>12-9966-42 was used in Flow cytometry/Cell sorting to suggest that, distinct from conventional T cells, the accumulation of MAIT cells is restrained by RIPK3 signalling, likely prior to thymic egress, in a manner independent of canonical apoptotic and necroptotic cell death pathways.</p>
Mouse / 1:100	<p>Cell death & disease (2023; 14:) "RIPK3 controls MAIT cell accumulation during development but not during infection." Author(s):Patton T,Zhao Z,Lim XY,Eddy E,Wang H,Nelson AG,Ennis B,Eckle SBG,Souter MNT,Pediongco TJ,Koay HF,Zhang JG,Djajawi TM,Louis C,Lalaoui N,Jacquelot N,Lew AM,Pellicci DG,McCluskey J,Zhan Y,Chen Z,Lawlor KE,Corbett AJ PubMed Article URL:http://dx.doi.org/10.1038/s41419-023-05619-0</p>
Mouse / Not Cited	<p>12-9966 was used in Flow cytometry/Cell sorting to study the role of interferon regulatory factor-8 on Th2 immunity to Helimosomoides polygyrus bakeri infection.</p> <p>PLoS pathogens (2017; 13:) "IRF-8 regulates expansion of myeloid-derived suppressor cells and Foxp3+ regulatory T cells and modulates Th2 immune responses to gastrointestinal nematode infection." Author(s):Valanparambil RM,Tam M,Gros PP,Auger JP,Segura M,Gros P,Jardim A,Geary TG,Ozato K,Stevenson MM PubMed Article URL:http://dx.doi.org/10.1371/journal.ppat.1006647</p>
Mouse / 1:100	<p>12-9966-42 was used in flow cytometry to indicate critical fibroblastic niches within the intestinal lamina propria that control ILC homeostasis and functionality and thereby secure protective gut immunity.</p> <p>Nature communications (2022; 13:) "Intestinal fibroblastic reticular cell niches control innate lymphoid cell homeostasis and function." Author(s):Cheng HW,Mörbe U,Lütge M,Engetschwiler C,Onder L,Novkovic M,Gil-Cruz C,Perez-Shibayama C,Hehlgans T,Scandella E,Ludewig B PubMed Article URL:http://dx.doi.org/10.1038/s41467-022-29734-2</p>
Human / Not Cited	<p>12-9966 was used in Flow cytometry/Cell sorting to suggest that innate lymphoid cell recovery and treatment-related tissue damage are interrelated and affect the development of GVHD.</p> <p>Blood (2014; 124: 812) "Activated innate lymphoid cells are associated with a reduced susceptibility to graft-versus-host disease." Author(s):Munneke JM,Björklund AT,Mjösberg JM,Garming-Legert K,Bernink JH,Blom B,Huisman C,van Oers MH,Spits H,Malmberg KJ,Hazenberg MD PubMed Article URL:http://dx.doi.org/10.1182/blood-2013-11-536888</p>
Mouse / Not Cited	<p>12-9966 was used in Flow cytometry/Cell sorting to study the signalling pathway responsible for mediating the stimulation of fibroblast-like synoviocytes by arthritogenic Th17 cells.</p> <p>Immunity (2018; 48: 1220) "Autoimmune Th17 Cells Induced Synovial Stromal and Innate Lymphoid Cell Secretion of the Cytokine GM-CSF to Initiate and Augment Autoimmune Arthritis." Author(s):Hirota K,Hashimoto M,Ito Y,Matsuura M,Ito H,Tanaka M,Watanabe H,Kondoh G,Tanaka A,Yasuda K,Kopf M,Potocnik AJ,Stockinger B,Sakaguchi N,Sakaguchi S PubMed Article URL:http://dx.doi.org/10.1016/j.immuni.2018.04.009</p>
Mouse / 1:50	<p>12-9966-42 was used in Flow Cytometry to determine the effects and mechanisms of action of Candida tropicalis on intestinal inflammation and injury in mouse models.</p> <p>Cellular and molecular gastroenterology and hepatology (2022; 13: 901) "Candida tropicalis Infection Modulates the Gut Microbiome and Confers Enhanced Susceptibility to Colitis in Mice." Author(s):Di Martino L,De Salvo C,Buela KA,Hager C,Ghannoum M,Osme A,Buttò L,Bamias G,Pizarro TT,Cominelli F PubMed Article URL:http://dx.doi.org/10.1016/j.jcmgh.2021.11.008</p>
Mouse / Not Cited	<p>12-9966-42 was used in Flow Cytometry to find that sex-specific differences in Treg cells from visceral adipose tissue are determined by the tissue niche in a sex-hormone-dependent manner to limit adipose tissue inflammation.</p> <p>Nature (2020; 579: 581) "Sex-specific adipose tissue imprinting of regulatory T cells." Author(s):Vasanthakumar A,Chisanga D,Blume J,Gloury R,Britt K,Henstridge DC,Zhan Y,Torres SV,Liene S,Collins N,Cao E,Sidwell T,Li C,Spallanzani RG,Liao Y,Beavis PA,Gebhardt T,Trevaskis N,Nutt SL,Zajac JD,Davey RA,Febbraio MA,Mathis D,Shi W,Kallies A PubMed Article URL:http://dx.doi.org/10.1038/s41586-020-2040-3</p>
Mouse / Not Cited	<p>12-9966 was used in Flow cytometry/Cell sorting to reveal previously underappreciated role of dietary glucose concentration in establishing regulatory properties in intestinal DCs, thereby extending a potential therapeutic module against intestinal inflammation.</p> <p>Frontiers in immunology (2021; 11:) "Dietary Glucose Consumption Promotes RALDH Activity in Small Intestinal CD103⁺CD11b⁺ Dendritic Cells." Author(s):Ko HJ,Hong SW,Verma R,Jung J,Lee M,Kim N,Kim D,Surh CD,Kim KS,Rudra D,Im SH PubMed Article URL:http://dx.doi.org/10.3389/fimmu.2020.01897</p>

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

	12-9966 was used in Flow cytometry/Cell sorting to identify an IPEX (immune dysregulation polyendocrinopathy enteropathy X-linked) syndrome patient with a FOXP3 mutation in the domain swap interface of the protein.
Mouse / Not Cited	Immunity (2019; 50: 362) "A Mutation in the Transcription Factor Foxp3 Drives T Helper 2 Effector Function in Regulatory T Cells." Author(s):Van Gool F,Nguyen MLT,Mumbach MR,Satpathy AT,Rosenthal WL,Giacometti S,Le DT,Liu W,Brusko TM,Anderson MS,Rudensky AY,Marson A,Chang HY,Bluestone JA PubMed Article URL: http://dx.doi.org/10.1016/j.immuni.2018.12.016
Mouse / Not Cited	12-9966 was used in Flow cytometry/Cell sorting to examine the effects of dermal triclosan exposure on the skin and lymph nodes of mice and in a human skin model to identify mechanisms for augmenting allergic responses. Toxicological sciences : an official journal of the Society of Toxicology (2015; 147: 127) "Triclosan Induces Thymic Stromal Lymphopoietin in Skin Promoting Th2 Allergic Responses." Author(s):Marshall NB,Lukomska E,Long CM,Kashon ML,Sharpnack DD,Nayak AP,Anderson KL,Jean Meade B,Anderson SE PubMed Article URL: http://dx.doi.org/10.1093/toxsci/kfv113
Mouse / Not Cited	12-9966 was used in Flow cytometry/Cell sorting to investigate the effects of LPS and -glucan on the pathogenesis of allergic and non-allergic respiratory responses to house dust mite allergen. PloS one (2016; 10:) "Microbial Ligand Costimulation Drives Neutrophilic Steroid-Refractory Asthma." Author(s):Hadebe S,Kirstein F,Fierens K,Chen K,Drummond RA,Vautier S,Sajaniemi S,Murray G,Williams DL,Redelinghuys P,Reinhart TA,Fallert Junecko BA,Kolls JK,Lambrecht BN,Brombacher F,Brown GD PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0134219
Mouse / Not Cited	12-9966-42 was used in Flow cytometry/Cell sorting to suggest that TH2 cell development depends on ubiquitin-mediated clearance of antigen-presenting and costimulatory molecules by LN-resident DCs and consequent control of TCR signaling. Science immunology (2021; 6:) "Lymph node-resident dendritic cells drive T<sub>H</sub>2 cell development involving MARCH1." Author(s):Castellanos CA,Ren X,Gonzalez SL,Li HK,Schroeder AW,Liang HE,Laidlaw BJ,Hu D,Mak ACY,Eng C,Rodríguez-Santana JR,LeNoir M,Yan Q,Celedón JC,Burchard EG,Zamvil SS,Ishido S,Locksley RM,Cyster JG,Huang X,Shin JS PubMed Article URL: http://dx.doi.org/10.1126/sciimmunol.abh0707
Mouse / 1:100	12-9966 was used in Flow cytometry/Cell sorting to highlight that intratumoral immunomodulation with an oncolytic virus expressing a rationally selected ligand can be an effective strategy to drive systemic efficacy of immune checkpoint blockade. Nature communications (2017; 8:) "Intratumoral modulation of the inducible co-stimulator ICOS by recombinant oncolytic virus promotes systemic anti-tumour immunity." Author(s):Zamarin D,Holmgaard RB,Ricca J,Plitt T,Palese P,Sharma P,Merghoub T,Wolchok JD,Allison JP PubMed Article URL: http://dx.doi.org/10.1038/ncomms14340
Mouse / 1:100	12-9966-42 was used in Flow Cytometry to conclude that sexual dimorphism in the contribution of microglia to pain results from Treg-mediated suppression of microglial activation and pain hypersensitivity in female mice. eLife (2021; 10:) "Regulatory T-cells inhibit microglia-induced pain hypersensitivity in female mice." Author(s):Kuhn JA,Vainchtein ID,Braz J,Hamel K,Bernstein M,Craik V,Dahlgren MW,Ortiz-Carpena J,Molofsky AB,Molofsky AV,Basbaum AI PubMed Article URL: http://dx.doi.org/10.7554/eLife.69056
Mouse / Not Cited	12-9966 was used in Flow cytometry/Cell sorting to investigate the contribution of microRNA-155 to TH2-mediated allergen-induced airway inflammation in a mouse model. The Journal of allergy and clinical immunology (2014; 133: 1429) "MicroRNA-155 is essential for T(H)2-mediated allergen-induced eosinophilic inflammation in the lung." Author(s):Malmhäll C,Alawieh S,Lu Y,Sjöstrand M,Bossios A,Eldh M,Rådinger M PubMed Article URL: http://dx.doi.org/10.1016/j.jaci.2013.11.008
Human / Not Cited	12-9966 was used in Flow cytometry/Cell sorting to study the chemokine receptor expression profiles in human pregnancy decidua to monitor levels of TH1, TH2, TH17 and Treg cells. Biology of reproduction (2010; 82: 698) "FOXP3+ regulatory T cells and T helper 1, T helper 2, and T helper 17 cells in human early pregnancy decidua." Author(s):Mjösberg J,Berg G,Jenmalm MC,Ernerudh J PubMed Article URL: http://dx.doi.org/10.1095/biolreprod.109.081208

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

	12-9966-42 was used in Flow Cytometry to show drainage of gut-draining lymph nodes can resolve conflicting tolerogenic and inflammatory intestinal responses by encouraging antigen targeting to specific gut segments.
Mouse / Not Cited	<p>Nature (2019; 569: 126)</p> <p>"Compartmentalized gut lymph node drainage dictates adaptive immune responses."</p> <p>Author(s):Esterházy D,Canesso MCC,Mesin L,Muller PA,de Castro TBR,Lockhart A,ElJalby M,Faria AMC,Mucida D</p> <p>PubMed Article URL:http://dx.doi.org/10.1038/s41586-019-1125-3</p>
	12-9966 was used in Flow cytometry/Cell sorting to study the role of mitochondrial oxidative phosphorylation in pathogenic Th17 differentiation.
Mouse / Not Cited	<p>Cell reports (2020; 30: 1898)</p> <p>"Mitochondrial Oxidative Phosphorylation Regulates the Fate Decision between Pathogenic Th17 and Regulatory T Cells."</p> <p>Author(s):Shin B,Benavides GA,Geng J,Koralov SB,Hu H,Darley-Usmar VM,Harrington LE</p> <p>PubMed Article URL:http://dx.doi.org/10.1016/j.celrep.2020.01.022</p>

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.