

IL-4 Monoclonal Antibody (11B11), APC,  
 eBioscience™

Catalog Number      17-7041-81

Product data sheet

| Details            |                                     | Species Reactivity                                                                                                                                                                             |                              |
|--------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Size               | 50 µg                               | Species reactivity                                                                                                                                                                             | Mouse                        |
| Host/Isotope       | Rat / IgG1, kappa                   | Published species                                                                                                                                                                              | Mouse, Human, Not Applicable |
| Class              | Monoclonal                          | Tested Applications                                                                                                                                                                            |                              |
| Type               | Antibody                            | Flow Cytometry (Flow)                                                                                                                                                                          | Dilution *<br>0.25 µg/test   |
| Clone              | 11B11                               | Published Applications                                                                                                                                                                         |                              |
| Conjugate          | APC                                 | Flow Cytometry (Flow)                                                                                                                                                                          | See 33 publications below    |
| Form               | Liquid                              | Immunohistochemistry (PFA fixed) (IHC (PFA))                                                                                                                                                   | See 1 publications below     |
| Concentration      | 0.2 mg/mL                           | Immunocytochemistry (ICC/IF)                                                                                                                                                                   | See 1 publications below     |
| Purification       | Affinity chromatography             | ELISA (ELISA)                                                                                                                                                                                  | See 1 publications below     |
| Storage buffer     | PBS, pH 7.2                         | * 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. |                              |
| Contains           | 0.09% sodium azide                  |                                                                                                                                                                                                |                              |
| Storage Conditions | 4° C, store in dark, DO NOT FREEZE! |                                                                                                                                                                                                |                              |

Product specific information

Description: The 11B11 antibody reacts with mouse interleukin-4 (IL-4), a 14 kD cytokine. The 11B11 antibody is a neutralizing antibody. Mouse IL-4, also known as BCGF, BCGF-1 and BSF-1, is secreted by activated Th2 and natural killer T cells, and to a lesser extent by Th1 and mast cells. IL-4 is species-specific and promotes proliferation and differentiation of B cells. IL-4, in conjunction with other signals such as CD40, induces Ig isotype switching of B cells and the upregulation of surface MHC class II and CD23. Applications Reported: This 11B11 antibody has been reported for use in intracellular staining followed by flow cytometric analysis. Applications Tested: This 11B11 antibody has been tested by intracellular staining and flow cytometric analysis of Th2 polarized and stimulated mouse splenocytes. This can be used at less than or equal to 0.25 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. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest. Excitation: 633-647 nm; Emission: 660 nm; Laser: Red Laser. Filtration: 0.2 µm post-manufacturing filtered.

Background/Target Information

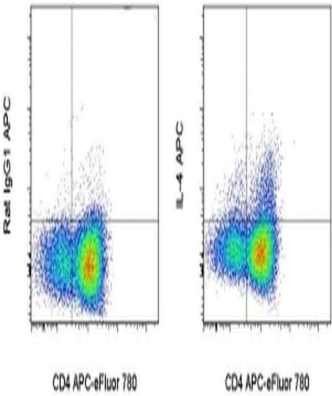
Interleukin-4 (IL-4) is a pleiotropic, immune-modulatory cytokine produced by activated T cells, and serves as a ligand for interleukin 4 receptor. IL-4 has been found to have the broadest range of actions. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play an important role in mediating the immune regulatory signal of IL-4. The IL-4 gene, IL-3, IL-5, IL-13, and CSF2 form a cytokine gene cluster on chromosome 5q. In particular, IL-4 is located in close proximity to IL13 on the chromosome. Further, the IL-4 gene, IL13 and IL5 are found to be coordinated by several long-range regulatory elements over a 120 kilobase range on the chromosome. IL-4 delta 2 is a known splice variant of IL-4.

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**IL-4 Antibody (17-7041-81) in Flow**

Intracellular staining of Th2-polarized mouse splenocytes with Anti-Mouse CD4 APC-eFluor® 780 (Product # 47-0041-82) and 0.125 µg of Rat IgG1 K Isotype Control APC (Product # 17-4301-82) (left) or 0.125 µg of Anti-Mouse IL-4 APC (right). Total viable cells, as determined by Fixable Viability Dye eFluor® 450 (Product # 65-0863-14) were used for analysis.

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33 Flow Cytometry References

| Species / Dilution | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | 17-7041 was used in Flow cytometry/Cell sorting to indicate that during graft-versus-host disease, miR-155 promotes DC migration toward sites of ATP release accompanied by inflammasome activation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Mouse / Not Cited  | Blood ( 2015; 126: 103)<br><b>"MicroRNA-155-deficient dendritic cells cause less severe GVHD through reduced migration and defective inflammasome activation."</b><br>Author(s):Chen S,Smith BA,lype J,Prestipino A,Pfeifer D,Grundmann S,Schmitt-Graeff A,Idzko M,Beck Y,Prinz G,Finke J, Duyster J,Zeiser R<br>PubMed Article URL: <a href="http://dx.doi.org/10.1182/blood-2014-12-617258">http://dx.doi.org/10.1182/blood-2014-12-617258</a>                                                                                                                                                                                                                                                                                  |
| Mouse / Not Cited  | 17-7041 was used in Flow cytometry/Cell sorting to study the CD41 expression within basophils from the blood during both steady state and malarial inections within mice.<br><br>European journal of immunology ( 2014; 44: 1823)<br><b>"CD41 is a reliable identification and activation marker for murine basophils in the steady state and during helminth and malarial infections."</b><br>Author(s):Bakocevic N,Claser C,Yoshikawa S,Jones LA,Chew S,Goh CC,Malleret B,Larbi A,Ginhoux F,de Lafaille MC, Karasuyama H,Renia L,Ng LG<br>PubMed Article URL: <a href="http://dx.doi.org/10.1002/eji.201344254">http://dx.doi.org/10.1002/eji.201344254</a>                                                                     |
| Mouse / Not Cited  | 17-7041 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.<br><br>Immunity ( 2020; 52: 650)<br><b>"Insulin-Like Growth Factors Are Key Regulators of T Helper 17 Regulatory T Cell Balance in Autoimmunity."</b><br>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<br>PubMed Article URL: <a href="http://dx.doi.org/10.1016/j.immuni.2020.03.013">http://dx.doi.org/10.1016/j.immuni.2020.03.013</a>                                                                 |
| Mouse / Not Cited  | 17-7041-82 was used in Flow Cytometry to employ RBPJ-inducible and KN6-transgenic mice to assess the roles of ontogenic timing, T cell receptor (TCR) signal strength, and Notch signaling.<br><br>Cell reports ( 2021; 35: )<br><b>"Ontogenic timing, T cell receptor signal strength, and Notch signaling direct T cell functional differentiation in vivo."</b><br>Author(s):Chen ELY,Lee CR,Thompson PK,Wiest DL,Anderson MK,Zúñiga-Pflücker JC<br>PubMed Article URL: <a href="http://dx.doi.org/10.1016/j.celrep.2021.109227">http://dx.doi.org/10.1016/j.celrep.2021.109227</a>                                                                                                                                            |
| Mouse / 1:100      | 17-7041 was used in Flow cytometry/Cell sorting to study the mechanism underlying the regulation of RORyt function.<br><br>Nature communications ( 2018; 9: )<br><b>"Sumoylation of RORt regulates T&lt;sub&gt;H&lt;/sub&gt;17 differentiation and thymocyte development."</b><br>Author(s):He Z,Zhang J,Huang Z,Du Q,Li N,Zhang Q,Chen Y,Sun Z<br>PubMed Article URL: <a href="http://dx.doi.org/10.1038/s41467-018-07203-z">http://dx.doi.org/10.1038/s41467-018-07203-z</a>                                                                                                                                                                                                                                                    |
| Mouse / Not Cited  | 17-7041 was used in Flow cytometry/Cell sorting to examine the role of the IRE1-dependent signalling cascade in coupling constitutive cytokine mRNA expression to the rapid induction of cytokine secretion and effector functions in activated iNKT cells.<br><br>Nature communications ( 2018; 9: )<br><b>"Stabilization of cytokine mRNAs in iNKT cells requires the serine-threonine kinase IRE1alpha."</b><br>Author(s):Govindarajan S,Gaublomme D,Van der Cruyssen R,Verheugen E,Van Gassen S,Saey s Y,Tavernier S,Iwawaki T,Bloch Y,Savvides SN,Lambrecht BN,Janssens S,Elwaut D,Drennan MB<br>PubMed Article URL: <a href="http://dx.doi.org/10.1038/s41467-018-07758-x">http://dx.doi.org/10.1038/s41467-018-07758-x</a> |
| Mouse / Not Cited  | 17-7041 was used in Flow cytometry/Cell sorting to study whether GATA-3 and T-box genes are regulated in human Th cells, showing that GATA3 up-regulation is associated with surface expression of CD294/CRTH2.<br><br>Blood ( 2007; 109: 4343)<br><b>"GATA3 up-regulation associated with surface expression of CD294/CRTH2: a unique feature of human Th cells."</b><br>Author(s):De Fanis U,Mori F,Kurnat RJ,Lee WK,Bova M,Adkinson NF,Casolaro V<br>PubMed Article URL: <a href="http://dx.doi.org/10.1182/blood-2006-05-025940">http://dx.doi.org/10.1182/blood-2006-05-025940</a>                                                                                                                                           |
| Mouse / Not Cited  | 17-7041 was used in Flow cytometry/Cell sorting to demonstrate that TSLP can initiate a cascade of allergic inflammation in the skin of transgenic mice.<br><br>The Journal of experimental medicine ( 2005; 202: 541)<br><b>"Spontaneous atopic dermatitis in mice expressing an inducible thymic stromal lymphopoietin transgene specifically in the skin."</b><br>Author(s):Yoo J,Omori M,Gyarmati D,Zhou B,Aye T,Brewer A,Comeau MR,Campbell DJ,Ziegler SF<br>PubMed Article URL: <a href="http://dx.doi.org/10.1084/jem.20041503">http://dx.doi.org/10.1084/jem.20041503</a>                                                                                                                                                 |

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|                   | <p>17-7041 was used in Flow cytometry/Cell sorting to demonstrate that, in contrast to their role in inducing Th2 responses in certain contexts, basophils are dispensable for the induction of donor Th2 responses and for the severity of GVHD.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mouse / Not Cited | <p>Biology of blood and marrow transplantation : journal of the American Society for Blood and Marrow Transplantation ( 2011; 17: 1747)</p> <p><b>"Host basophils are dispensable for induction of donor T helper 2 cell differentiation and severity of experimental graft-versus-host disease."</b></p> <p>Author(s):Tawara I,Nieves E,Liu C,Evers R,Toubai T,Sun Y,Alrubaie M,Reddy P</p> <p>PubMed Article URL:<a href="http://dx.doi.org/10.1016/j.bbmt.2011.08.013">http://dx.doi.org/10.1016/j.bbmt.2011.08.013</a></p>                                                                                                                                                                                                                                            |
| Mouse / Not Cited | <p>17-7041 was used in Flow cytometry/Cell sorting to study the role of incoming IL-10+ neutrophils from G-CSF-treated donor spleen in inhibiting acute graft-versus-host disease.</p> <p>Journal of immunology (Baltimore, Md. : 1950) ( 2016; 197: 3725)</p> <p><b>"G-CSF-Induced Suppressor IL-10+ Neutrophils Promote Regulatory T Cells That Inhibit Graft-Versus-Host Disease in a Long-Lasting and Specific Way."</b></p> <p>Author(s):Perobelli SM,Mercadante AC,Galvani RG,Gonçalves-Silva T,Alves AP,Pereira-Neves A,Benchimol M,Nóbrega A,Bonomo A</p> <p>PubMed Article URL:<a href="http://dx.doi.org/10.4049/jimmunol.1502023">http://dx.doi.org/10.4049/jimmunol.1502023</a></p>                                                                           |
| Mouse / Not Cited | <p>17-7041 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: )</p> <p><b>"Ets1 suppresses atopic dermatitis by suppressing pathogenic T cell responses."</b></p> <p>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</p> <p>PubMed Article URL:<a href="http://dx.doi.org/10.1172/jci.insight.124202">http://dx.doi.org/10.1172/jci.insight.124202</a></p>                                                                                                                                                                       |
| Mouse / Not Cited | <p>17-7041 was used in Flow cytometry/Cell sorting to suggest that IL-21 promotes PAH in association with M2 macrophage polarisation, downstream of IL-6-signalling.</p> <p>Proceedings of the National Academy of Sciences of the United States of America ( 2015; 112: E2677)</p> <p><b>"Interleukin-6/interleukin-21 signaling axis is critical in the pathogenesis of pulmonary arterial hypertension."</b></p> <p>Author(s):Hashimoto-Kataoka T,Hosen N,Sonobe T,Arita Y,Yasui T,Masaki T,Minami M,Inagaki T,Miyagawa S,Sawa Y,Murakami M,Kumanogoh A,Yamauchi-Takihara K,Okumura M,Kishimoto T,Komuro I,Shirai M,Sakata Y,Nakaoka Y</p> <p>PubMed Article URL:<a href="http://dx.doi.org/10.1073/pnas.1424774112">http://dx.doi.org/10.1073/pnas.1424774112</a></p> |
| Mouse / Not Cited | <p>17-7041 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: )</p> <p><b>"IRF-8 regulates expansion of myeloid-derived suppressor cells and Foxp3+ regulatory T cells and modulates Th2 immune responses to gastrointestinal nematode infection."</b></p> <p>Author(s):Valanparambil RM,Tam M,Gros PP,Auger JP,Segura M,Gros P,Jardim A,Geary TG,Ozato K,Stevenson MM</p> <p>PubMed Article URL:<a href="http://dx.doi.org/10.1371/journal.ppat.1006647">http://dx.doi.org/10.1371/journal.ppat.1006647</a></p>                                                                                                                 |
| Mouse / Not Cited | <p>17-7041-82 was used in Flow Cytometry to point to an M-CSF-producing T cell subset that fulfills a specialized protective role in the later stage of malaria infection when T cells have declined.</p> <p>Immunity ( 2018; 48: 350)</p> <p><b>"A Macrophage Colony-Stimulating-Factor-Producing T Cell Subset Prevents Malarial Parasitemic Recurrence."</b></p> <p>Author(s):Mamedov MR,Scholzen A,Nair RV,Cumnock K,Kenkel JA,Oliveira JHM,Trujillo DL,Saligramam N,Zhang Y,Rubelt F,Schneider DS,Chien YH,Sauerwein RW,Davis MM</p> <p>PubMed Article URL:<a href="http://dx.doi.org/10.1016/j.immuni.2018.01.009">http://dx.doi.org/10.1016/j.immuni.2018.01.009</a></p>                                                                                           |
| Mouse / 1:200     | <p>17-7041 was used in Flow cytometry/Cell sorting to show that tumors induce de novo steroidogenesis in T lymphocytes to evade anti-tumor immunity.</p> <p>Nature communications ( 2020; 11: )</p> <p><b>"Tumors induce de novo steroid biosynthesis in T cells to evade immunity."</b></p> <p>Author(s):Mahata B,Pramanik J,van der Weyden L,Polanski K,Kar G,Riedel A,Chen X,Fonseca NA,Kundu K,Campos LS,Ryder E,Duddy G,Walczak I,Okkenhaug K,Adams DJ,Shields JD,Teichmann SA</p> <p>PubMed Article URL:<a href="http://dx.doi.org/10.1038/s41467-020-17339-6">http://dx.doi.org/10.1038/s41467-020-17339-6</a></p>                                                                                                                                                 |
| Mouse / Not Cited | <p>17-7041 was used in Flow cytometry/Cell sorting to investigate the factors that influence the development of Th17 cells, showing that lineage gene expression is set by Ikaros.</p> <p>The Journal of biological chemistry ( 2013; 288: 35170)</p> <p><b>"Ikaros sets the potential for Th17 lineage gene expression through effects on chromatin state in early T cell development."</b></p> <p>Author(s):Wong LY,Hatfield JK,Brown MA</p> <p>PubMed Article URL:<a href="http://dx.doi.org/10.1074/jbc.M113.481440">http://dx.doi.org/10.1074/jbc.M113.481440</a></p>                                                                                                                                                                                                |

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|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | 17-7041 was used in Flow cytometry/Cell sorting to study the effect of Mer receptor tyrosine kinase deficiency on the clearance of apoptotic cells.                                                                                                                                                                                                                                                                         |
| Mouse / Not Cited | Journal of immunology (Baltimore, Md. : 1950) ( 2013; 190: 1433)<br><b>"Prolonged apoptotic cell accumulation in germinal centers of Mer-deficient mice causes elevated B cell and CD4+ Th cell responses leading to autoantibody production."</b><br>Author(s):Khan TN,Wong EB,Soni C,Rahman ZS<br>PubMed Article URL: <a href="http://dx.doi.org/10.4049/jimmunol.1200824">http://dx.doi.org/10.4049/jimmunol.1200824</a> |
|                   | 17-7041 was used in Flow cytometry/Cell sorting to confirm a novel immune regulatory function of Immunoglobulin E.                                                                                                                                                                                                                                                                                                          |
| Mouse / Not Cited | Mucosal immunology ( 2015; 8: 516)<br><b>"Dendritic cell-bound IgE functions to restrain allergic inflammation at mucosal sites."</b><br>Author(s):Platzer B,Baker K,Vera MP,Singer K,Panduro M,Lexmond WS,Turner D,Vargas SO,Kinet JP,Maurer D,Baron RM,Blumberg RS,Fiebiger E<br>PubMed Article URL: <a href="http://dx.doi.org/10.1038/mi.2014.85">http://dx.doi.org/10.1038/mi.2014.85</a>                              |
|                   | 17-7041 was used in Flow cytometry/Cell sorting to provide "proof-of-concept" for the development of a cryptococcal vaccine that provides cross-protection against multiple disparate serotypes of Cryptococcus.                                                                                                                                                                                                            |
| Mouse / Not Cited | Frontiers in immunology ( 2019; 8: )<br><b>"Induction of Broad-Spectrum Protective Immunity against Disparate <i>Cryptococcus</i> Serotypes."</b><br>Author(s):Van Dyke MCC,Chaturvedi AK,Hardison SE,Leopold Wager CM,Castro-Lopez N,Hole CR,Wozniak KL,Wormley FL<br>PubMed Article URL: <a href="http://dx.doi.org/10.3389/fimmu.2017.01359">http://dx.doi.org/10.3389/fimmu.2017.01359</a>                              |
|                   | 17-7041-82 was used in Flow cytometry/Cell sorting to unveil a new role of MSCs-Exo containing miR-223 in the treatment of acute graft-versus-host disease (aGvHD).                                                                                                                                                                                                                                                         |
| Mouse / Not Cited | Stem cell research & therapy ( 2021; 12: )<br><b>"Mesenchymal stem cell exosome-derived miR-223 alleviates acute graft-versus-host disease via reducing the migration of donor T cells."</b><br>Author(s):Liu W,Zhou N,Liu Y,Zhang W,Li X,Wang Y,Zheng R,Zhang Y<br>PubMed Article URL: <a href="http://dx.doi.org/10.1186/s13287-021-02159-2">http://dx.doi.org/10.1186/s13287-021-02159-2</a>                             |
|                   | 17-7041 was used in Flow cytometry/Cell sorting to examine immune cells and cytokine profiles of Trichinella spiralis infected mice by Meso Scale Discovery (MSD) and flow cytometry.                                                                                                                                                                                                                                       |
| Mouse / Not Cited | Parasite (Paris, France) ( 2020; 26: )<br><b>"Regulation of host immune cells and cytokine production induced by Trichinella spiralis infection."</b><br>Author(s):Song Y,Xu J,Wang X,Yang Y,Bai X,Pang J,Wang X,Yu M,Liu M,Liu X,Sun S<br>PubMed Article URL: <a href="http://dx.doi.org/10.1051/parasite/2019074">http://dx.doi.org/10.1051/parasite/2019074</a>                                                          |
|                   | 17-7041 was used in Flow cytometry/Cell sorting to identify cognitive changes during Nippostrongylus brasiliensis infection.                                                                                                                                                                                                                                                                                                |
| Mouse / Not Cited | Scientific reports ( 2018; 8: )<br><b>"Nippostrongylus brasiliensis infection leads to impaired reference memory and myeloid cell interference."</b><br>Author(s):Brombacher TM,De Gouveia KS,Cruywagen L,Makena N,Booley F,Tamgue O,Brombacher F<br>PubMed Article URL: <a href="http://dx.doi.org/10.1038/s41598-018-20770-x">http://dx.doi.org/10.1038/s41598-018-20770-x</a>                                            |
|                   | 17-7041 was used in Flow cytometry/Cell sorting to study how upregulation of miR-19a in asthma may be an indicator and a cause of increased TH2 cytokine production in the airways.                                                                                                                                                                                                                                         |
| Mouse / Not Cited | Nature immunology ( 2014; 15: 1162)<br><b>"A microRNA upregulated in asthma airway T cells promotes TH2 cytokine production."</b><br>Author(s):Simpson LJ,Patel S,Bhakta NR,Choy DF,Brightbill HD,Ren X,Wang Y,Pua HH,Baumjohann D,Montoya MM,Panduro M,Remedios KA,Huang X,Fahy JV,Arron JR,Woodruff PG,Ansel KM<br>PubMed Article URL: <a href="http://dx.doi.org/10.1038/ni.3026">http://dx.doi.org/10.1038/ni.3026</a>  |
|                   | 17-7041 was used in Flow cytometry/Cell sorting to investigate whether Samhwangsasim-tang has a beneficial effect in treating myelin oligodendrocyte glycoprotein-induced experimental autoimmune encephalomyelitis.                                                                                                                                                                                                        |
| Mouse / Not Cited | Frontiers in pharmacology ( 2020; 8: )<br><b>"Oriental Medicine Samhwangsasim-tang Alleviates Experimental Autoimmune Encephalomyelitis by Suppressing Th1 Cell Responses and Upregulating Treg Cell Responses."</b><br>Author(s):Lee MJ,Choi JH,Lee SJ,Cho IH<br>PubMed Article URL: <a href="http://dx.doi.org/10.3389/fphar.2017.00192">http://dx.doi.org/10.3389/fphar.2017.00192</a>                                   |
|                   | 17-7041 was used in Flow cytometry/Cell sorting to determine that IL-33, but not IL-25, is crucial for the development of house dust mice antigen-induced allergic rhinitis.                                                                                                                                                                                                                                                |
| Mouse / Not Cited | PloS one ( 2014; 8: )<br><b>"IL-33, but not IL-25, is crucial for the development of house dust mite antigen-induced allergic rhinitis."</b><br>Author(s):Nakanishi W,Yamaguchi S,Matsuda A,Suzukawa M,Shibui A,Nambu A,Kondo K,Suto H,Saito H,Matsumoto K,Yamasoba T,Nakae S<br>PubMed Article URL: <a href="http://dx.doi.org/10.1371/journal.pone.0078099">http://dx.doi.org/10.1371/journal.pone.0078099</a>            |

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17-7041 was used in Flow cytometry/Cell sorting to evaluate the effect of overexpressing recombinant Ag using modified vaccinia virus early/late promoter H5 (mPH5), showing that overexpression enhances antibody responses and increases vaccination efficiency.

Mouse / Not Cited

Vaccines ( 2014; 2: 581)  
**"Gene Expression Driven by a Strong Viral Promoter in MVA Increases Vaccination Efficiency by Enhancing Antibody Responses and Unmasking CD8 T Cell Epitopes."**  
Author(s):Becker PD,Nörder M,Weissmann S,Ljapoci R,Erfle V,Drexler I,Guzmán CA  
PubMed Article URL:<http://dx.doi.org/10.3390/vaccines2030581>

17-7041 was used in Flow cytometry/Cell sorting to explore the contribution of L-PGDS to the development of chronic kidney disease.

Mouse / Not Cited

Journal of the American Society of Nephrology : JASN ( 2012; 23: 1797)  
**"PGD2-CRTH2 pathway promotes tubulointerstitial fibrosis."**  
Author(s):Ito H,Yan X,Nagata N,Aritake K,Katsumata Y,Matsuhashi T,Nakamura M,Hirai H,Urade Y,Asano K,Kubo M, Utsunomiya Y,Hosoya T,Fukuda K,Sano M  
PubMed Article URL:<http://dx.doi.org/10.1681/ASN.2012020126>

17-7041 was used in Flow cytometry/Cell sorting to investigate the role of Dec2 in Th cell differentiation, showing that it is progressively induced at the late stage of Th2 differentiation, and that upregulation of Dec2 can promote Th2 differentiation under Th2-inducing conditions, which is due to CD25 expression elicited by Dec2.

Mouse / Not Cited

Journal of immunology (Baltimore, Md. : 1950) ( 2009; 183: 6320)  
**"Dec2 promotes Th2 cell differentiation by enhancing IL-2R signaling."**  
Author(s):Liu Z,Li Z,Mao K,Zou J,Wang Y,Tao Z,Lin G,Tian L, Ji Y,Wu X,Zhu X,Sun S,Chen W,Xiang C,Sun B  
PubMed Article URL:<http://dx.doi.org/10.4049/jimmunol.0900975>

17-7041 was used in Flow Cytometry to study the role of large and small peritoneal macrophages in endometriosis.

Mouse / 1:120

Human reproduction (Oxford, England) ( 2017; 32: 94)  
**"Rediscovering peritoneal macrophages in a murine endometriosis model."**  
Author(s):Yuan M,Li D,An M,Li Q,Zhang L,Wang G  
PubMed Article URL:<http://dx.doi.org/10.1093/humrep/dew274>

17-7041 was used in Flow cytometry/Cell sorting to identify Semaphorin 3E as a novel regulatory molecule in allergic asthma that acts upstream of proallergic events.

Mouse / Not Cited

Journal of immunology (Baltimore, Md. : 1950) ( 2017; 198: 1805)  
**"Semaphorin 3E Deficiency Exacerbates Airway Inflammation, Hyperresponsiveness, and Remodeling in a Mouse Model of Allergic Asthma."**  
Author(s):Movassagh H,Shan L,Mohammed A,Halayko AJ,Gounni AS  
PubMed Article URL:<http://dx.doi.org/10.4049/jimmunol.1601514>

17-7041 was used in Flow cytometry/Cell sorting to investigate the importance of natural killer cells in house dust mite-triggered allergic response.

Mouse / Not Cited

The Journal of allergy and clinical immunology ( 2014; 133: 827)  
**"Natural killer cell NKG2D and granzyme B are critical for allergic pulmonary inflammation."**  
Author(s):Farhadi N,Lambert L,Triulzi C,Openshaw PJ,Guerra N,Culley FJ  
PubMed Article URL:<http://dx.doi.org/10.1016/j.jaci.2013.09.048>

17-7041-82 was used in Flow cytometry/Cell sorting to show that sRAGE can serve as a novel immunometabolic modulator that ameliorates ischemic stroke recovery by inhibiting fatty acid synthesis and thus favoring CD4+ T cells polarization toward Treg after cerebral ischemia injury.

Mouse / Not Cited

Journal of cerebral blood flow and metabolism : official journal of the International Society of Cerebral Blood Flow and Metabolism ( 2022; 42: 952)  
**"RAGE-mediated T cell metabolic reprogramming shapes T cell inflammatory response after stroke."**  
Author(s):Zhang Y,Li F,Chen C,Li Y,Xie W,Huang D,Zhai X,Yu W,Wan J,Li P  
PubMed Article URL:<http://dx.doi.org/10.1177/0271678X211067133>

17-7041 was used in Flow cytometry/Cell sorting to reveal T cell activation induces global post-transcriptional miRNA down-regulation, promoting acquisition of helper T cell effector functions.

Mouse / Not Cited

The Journal of experimental medicine ( 2013; 210: 417)  
**"T cell activation induces proteasomal degradation of Argonaute and rapid remodeling of the microRNA repertoire."**  
Author(s):Bronevetsky Y,Villarino AV,Eisley CJ,Barbeau R,Barczak AJ,Heinz GA,Kremmer E,Heissmeyer V,McManus MT, Erle DJ,Rao A,Ansel KM  
PubMed Article URL:<http://dx.doi.org/10.1084/jem.20111717>

1 Immunohistochemistry (PFA fixed) References

| Species / Dilution | Summary |
|--------------------|---------|
|--------------------|---------|

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17-7041-82 was used in Immunohistochemistry (PFA fixed) to imply that dual IL-4/IL-13 vaccination may represent a cost-effective, long-term therapeutic strategy for the treatment of allergic asthma as demonstrated in mouse models, although additional studies are warranted to assess its safety and feasibility.

Nature communications ( 2021; 12: )  
**"Dual vaccination against IL-4 and IL-13 protects against chronic allergic asthma in mice."**  
Author(s):Conde E,Bertrand R,Balbino B,Bonnefoy J,Stackowicz J,Caillot N,Colaone F,Hamdi S,Houmadi R,Loste A,Kamphuis JBJ,Huetz F,Guilleminault L,Gaudenzio N,Mougel A,Hardy D,Snouwaert JN,Koller BH,Serra V,Bruhns P,Grouard-Vogel G,Reber LL  
PubMed Article URL:<http://dx.doi.org/10.1038/s41467-021-22834-5>

1 Immunocytochemistry References

| Species / Dilution | Summary                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | 17-7041 was used in Immunocytochemistry-immunoflourescence to demonstrate that stimulation of interferon--secreting CD8+ cytotoxic T lymphocytes is significantly decreased after vaccination in the absense of type I interferon signalling.                                                                                                                                               |
| Mouse / Not Cited  | EBioMedicine ( 2017; 22: 100)<br><b>"Type I IFN and not TNF, is Essential for Cyclic Di-nucleotide-elicited CTL by a Cytosolic Cross-presentation Pathway."</b><br>Author(s):Lirussi D,Ebensen T,Schulze K,Trittel S,Duran V,Liebich I,Kalinke U,Guzmán CA<br>PubMed Article URL: <a href="http://dx.doi.org/10.1016/j.ebiom.2017.07.016">http://dx.doi.org/10.1016/j.ebiom.2017.07.016</a> |

1 ELISA References

| Species / Dilution | Summary                                                                                                                                                                                                                                                                                                                     |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | 17-7041 was used in an ELISpot assay to demonstrate that immunising mice with the SK-MEL-28 cell line or with syngeneic APCs loaded with GD3 can induce a GD3-reactive natural killer T cell response.                                                                                                                      |
| Mouse / Not Cited  | The Journal of experimental medicine ( 2003; 198: 173)<br><b>"Cross-presentation of disialoganglioside GD3 to natural killer T cells."</b><br>Author(s):Wu DY,Segal NH,Sidobre S,Kronenberg M,Chapman PB<br>PubMed Article URL: <a href="http://dx.doi.org/10.1084/jem.20030446">http://dx.doi.org/10.1084/jem.20030446</a> |

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