CD3e Monoclonal Antibody (FN-18), FITC

**Catalog Number** APS0308

**Details**

- **Size**: 100 Tests
- **Host/Isotope**: Mouse / IgG1
- **Class**: Monoclonal
- **Type**: Antibody
- **Clone**: FN-18
- **Immunogen**: Rhesus monkey peripheral blood leukocytes.
- **Conjugate**: FITC
- **Form**: Lyophilized
- **Purification**: Ion-exchange chromatography
- **Storage buffer**: PBS with 125mM trehalose, 1% BSA
- **Contains**: no preservative
- **Storage Conditions**: 4° C, store in dark

**Species Reactivity**

- **Species reactivity**: Non-human primate, Rhesus monkey
- **Published species**: Non-human primate, Human, Not Applicable, Rhesus monkey

**Tested Applications**

- **Flow Cytometry (Flow)**: Assay-dependent

**Published Applications**

- **Flow Cytometry (Flow)**: See 17 publications below
- **Miscellaneous PubMed (Misc)**: See 9 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 experiments using appropriate negative and positive controls.

### Background/Target Information

The CD3 subunit complex which is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta. These CD3 subunits are structurally related members of the immunoglobulins super family encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules and this association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation. The CD3 antigen is present on 68-82% of normal peripheral blood lymphocytes, 65-85% of thymocytes and Purkinje cells in the cerebellum. It is never expressed on B or NK cells. Decreased percentages of T lymphocytes may be observed in some autoimmune diseases. The genes encoding the CD3 epsilon, gamma and delta polypeptides are located on chromosome 11. Defects in the CD3 gene are associated with CD3 immunodeficiency.

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
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<tbody>
<tr>
<td>APS0308 was used in flow cytometry to describe viral diversification within two rhesus macaques infected with SHIVSF33A2</td>
<td>&quot;Infection of macaques with a molecular clone, SHIVSF33A2, provides evidence for tissue specific variants.&quot; Author(s): Buckner GM, Gettle A, Tan RC, Eshetu T, Ratterree M, Blanchard J, Cheng-Mayer C, Harouse JM. PubMed Article URL: <a href="http://www.ncbi.nlm.nih.gov/pubmed/1290538">http://www.ncbi.nlm.nih.gov/pubmed/1290538</a></td>
</tr>
<tr>
<td>APS0308 was used in flow cytometry to study macaques challenged with virulent 89.6P chimera of simian and human immunodeficiency viruses</td>
<td>&quot;Signature for long-term vaccine-mediated control of a Simian and human immunodeficiency virus 89.6P challenge: stable low-breadth and low-frequency T-cell response capable of coproducing gamma interferon and interleukin-2.&quot; Author(s): Sadagopal S, Amara RR, Montefiori DC, Wyatt LS, Staprans SI, Kozyr NL, McClure HM, Moss B, Robinson HL. PubMed Article URL: <a href="http://dx.doi.org/10.1128/JVI.79.6.3243-3253.2005">http://dx.doi.org/10.1128/JVI.79.6.3243-3253.2005</a></td>
</tr>
<tr>
<td>APS0308 was used in flow cytometry to study rhesus macaques after infection with simian immunodeficiency virus/HIV chimeric virus</td>
<td>The Journal of general virology (May 2006; 87: 1311) &quot;Rapid dissemination of a pathogenic simian/human immunodeficiency virus to systemic organs and active replication in lymphoid tissues following intrarectal infection.&quot; Author(s): Miyake A, Iibi K, Enose Y, Suzuki H, Horuchi R, Motohara M, Saito N, Nakasone T, Honda M, Watanabe T, Miura T, Hayami M. PubMed Article URL: <a href="http://dx.doi.org/10.1099/vir.0.81307-0">http://dx.doi.org/10.1099/vir.0.81307-0</a></td>
</tr>
<tr>
<td>APS0308 was used in flow cytometry to test if HIV infection impairs T-cell development in the thymus</td>
<td>Micobes and infection (May 2006; 8: 1539) &quot;Impaired T-cell differentiation in the thymus at the early stages of acute pathogenic chimeric simian-human immunodeficiency virus (SHIV) infection in contrast to less pathogenic SHIV infection.&quot; Author(s): Motohara M, Iibi K, Miyake A, Fukazawa Y, Inaba K, Suzuki H, Masuda K, Minato N, Kawamoto H, Nakasone T, Honda M, Hayami M, Miura T. PubMed Article URL: <a href="http://dx.doi.org/10.1016/j.micinf.2006.01.011">http://dx.doi.org/10.1016/j.micinf.2006.01.011</a></td>
</tr>
<tr>
<td>APS0308 was used in flow cytometry to examine CD4+ CD8+ T cells as a viral reservoir for simian immunodeficiency virus in vivo</td>
<td>AIDS research and human retroviruses (Apr 2003; 19: 267) &quot;Simian immunodeficiency virus infection of CD4+CD8+ T cells in a macaque with an unusually high peripheral CD4+CD8+ T lymphocyte count.&quot; Author(s): Khatissian E, Monceaux V, Cumont MC, Ho Tsong Fang R, Estaquier J, Hurtrel B. PubMed Article URL: <a href="http://dx.doi.org/10.1098/rspb.2003.0465">http://dx.doi.org/10.1098/rspb.2003.0465</a></td>
</tr>
</tbody>
</table>
APS0308 was used in flow cytometry to characterize primitive non-specific immune responses elicited by attenuated simian and human immunodeficiency virus infection using rhesus macaques

Not Applicable / Not Cited

Archives of virology (Sep 2004; 149: 1705)

"Protective effects of nef-deleted SHIV or that having IFN-gamma against disease induced with a pathogenic virus early after vaccination."


PubMed Article URL: http://dx.doi.org/10.1007/s00705-004-0333-8

APS0308 was used in flow cytometry to assess the protective efficacy of cellulose acetate 1,2-benzene dicarboxylate formulated in a glycerol-based gel in a rhesus macaque model of HIV-1 transmission

Not Applicable / Not Cited


"Cellulose acetate 1,2-benzene dicarboxylate protects against challenge with pathogenic X4 and R5 simian/human immunodeficiency virus."

Author(s): Boadi T, Schneider E, Chung S, Tsai L, Gettle A, Ratterree M, Blanchard J, Neurath AR, Cheng-Mayer C

PubMed Article URL: http://dx.doi.org/10.1097/01.aids.0000186020.24426.62

APS0308 was used in flow cytometry to assess the antiviral and adjuvant effect of recombinant human IFN-gamma in vaccinated and unvaccinated monkeys infected with SHIV-C2/1

Not Applicable / Not Cited

Microbiology and immunology (Mar 2006; 49: 1083)

"Protective efficacy of nonpathogenic nef-deleted SHIV vaccination combined with recombinant IFN-gamma administration against a pathogenic SHIV challenge in rhesus monkeys."


APS0308 was used in flow cytometry to report that intestinal disorders, CD4+ cell reduction, and abnormal immune activation are independent of virus replication levels in SHIV-KS661-infected macaques

Not Applicable / Not Cited

The Journal of general virology (Mar 2010; 91: 773)

"Small intestine CD4+ cell reduction and enteropathy in simian/human immunodeficiency virus KS661-infected rhesus macaques in the presence of low viral load."


PubMed Article URL: http://dx.doi.org/10.1099/vir.0.017368-0

APS0308 was used in flow cytometry to assess the efficacy of a multigenic DNA prime/modified vaccinia Ankara boost vaccine approach

Not Applicable / Not Cited

Viral immunology (Jun 2008; 21: 235)

"Better protective effects in rhesus macaques by combining systemic and mucosal application of a dual component vector vaccine after rectal SHIV89.6P challenge compared to systemic vaccination alone."


PubMed Article URL: http://dx.doi.org/10.1098/vim.2007.0103

APS0308 was used in flow cytometry to assess the effect of virus replication on immature T cells using SHIV-inoculated newborn monkeys

Not Applicable / Not Cited

Journal of medical primatology (Oct 2005; 34: 294)

"Early virological events in various tissues of newborn monkeys after intrarectal infection with pathogenic simian human immunodeficiency virus."


PubMed Article URL: http://dx.doi.org/10.1111/j.1600-0684.2005.00127.x

APS0308 was used in flow cytometry to describe a prime-boost regimen for the HIV vaccination of Macaca fascicularis.

Not Applicable / Not Cited

PloS one (Dec 2015; 9: )

"Biospatible anionic polymeric microspheres as priming delivery system for effective HIV/AIDS Tat-based vaccines."


PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0111360

Non-human primate / Not Cited


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”). Any 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, the warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. The 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 or replacement of the non-conforming Product(s) or refund of the purchase price, at Seller's sole option and at no charge to Buyer. In no event shall Seller be liable to Buyer or any other person for any direct, indirect, or consequential damages of any kind, or for any lost profits, or cost of procurement of substitute products, or any type of consummation or application to human or animal.

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Rockford, IL 61015 USA

thermofisher.com/contactus

Cited

Non-human primate / Not Cited


PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0111360


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PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0111360

Non-human primate / Not Cited


PubMed Article URL: http://dx.doi.org/10.1371/journal.pone.0111360
APS0308 was used in flow cytometry to elucidate the contribution of monocytes to SIV spread in macaques

AIDS research and human retroviruses (Mar 2007; 23: 372)

"Contribution of monocytes to viral replication in macaques during acute infection with simian immunodeficiency virus."

Author(s):Kuwata T,Kodama M,Sato A,Suzuki H,Miyazaki Y,Miura T,Hayami M

PubMed Article URL:http://dx.doi.org/10.1089/aid.2006.0208

APS0308 was used in flow cytometry to assess the effects of using GM-CSF DNA with the DNA prime for a simian-human immunodeficiency virus-89.6 vaccine

Virology (Dec 2007: 369: 153)

"GM-CSF DNA: an adjuvant for higher avidity IgG, rectal IgA, and increased protection against the acute phase of a SHIV-89.6P challenge by a DNA/MVA immunodeficiency virus vaccine."


PubMed Article URL:http://dx.doi.org/10.1016/j.virology.2007.07.017

APS0308 was used in flow cytometry to describe an approach to generate sterilizing immunity to HIV infection


"Multiprotein genetic vaccine in the SIV-Macaca animal model: a promising approach to generate sterilizing immunity to HIV infection."


PubMed Article URL:http://dx.doi.org/10.1111/j.1600-0684.2007.00236.x

9 Miscellaneous PubMed References

Species / Dilution

Summary

APS0308 was used in flow cytometry to assess the susceptibility of cynomolgus monkeys to FTY720 either alone or in combination with two other immunosuppressants.

Non-human primate / Not Cited

APS0308 was used in flow cytometry to compare chemokine production in Asian macaques and African sooty mangabey monkeys after infection with SIV.

Rhesus monkey / Not Cited

APS0308 was used in flow cytometry to examine the innate and adaptive immune responses of rhesus macaques infected with SIVmac251.

Rhesus monkey / Not Cited

APS0308 was used in flow cytometry to elucidate the contribution of monocytes to SIV spread in macaques

Non-human primate / Not Cited
Non-human primate / Not Cited

Journal of virology (Feb 2000; 74: 1209)
"Normal T-cell turnover in sooty mangabeys harboring active simian immunodeficiency virus infection."
PubMed Article URL:http://dx.doi.org/10.1128/jvi.74.3.1209-1223.2000

Rhesus monkey / Not Cited

Vaccine (May 2002; 20: 1949)
"Control of a mucosal challenge and prevention of AIDS by a multiprotein DNA/MVA vaccine."
Author(s):Amara RR,Villinger F,Altman JD,Lydy SL,O'Neil SP,Staprans SI,Montefiori DC,Xu Y,Herndon JG,Wyatt LS,Candido MA,Kozyr NL,Earl PL,Smith JM,Ma HL,Grimm BD,Hulsey ML,McCure HM,McNicholl JM,Moss B,Robinson HL
PubMed Article URL:http://dx.doi.org/10.1016/s0264-410x(02)00076-2

Rhesus monkey / Not Cited

Cytometry (May 2000; 40: 69)
"Importance of the CD3 marker for evaluating changes in rhesus macaque CD4/CD8 T-cell ratios."
Author(s):Dykhuizen M,Ceman J,Mitchen J,Zayas M,MacDougall A,Helgeland J,Rakasz E,Pauza CD
PubMed Article URL:http://dx.doi.org/10.1002/sici.1097-0320(20000501)40:1<69::aid-cyto9>3.0.co;2-7

Non-human primate / Not Cited

Vaccine (Dec 2005; 23: 5783)
"The immune response of the Chacma baboon to Bacille Calmette Guerin: development of a primate model for BCG-based vaccine research."
Author(s):Chege GK,Williamson AL,Passmore JS,Bourn W,Ryffel B,Shephard EG
PubMed Article URL:http://dx.doi.org/10.1016/j.vaccine.2005.07.106

Human / Not Cited

Cytometry (Nov 2000; 41: 193)
"One-round determination of seven leukocyte subsets in rhesus macaque blood by flow cytometry."
Author(s):LaFont BA,Gloeckler L,D'Hautcourt JL,Gut JP,Aubertin AM
PubMed Article URL:http://dx.doi.org/10.1002/1097-0320(20001101)41:3<193::aid-cyto6>3.0.co;2-g