

Ultra-LEAF™ Purified anti-human IL-16 Antibody

Catalog# / Size	519108 / 1 mg
Clone	14.1
Regulatory Status	RUO
Other Names	Interleukin-16
Isotype	Mouse IgG2a
Description	Interleukin-16 is a proinflammatory cytokine synthesized as a 68 kD precursor molecule (pro-IL-16). After cleavage of pro-IL-16 by caspase-3, IL-16 is released as a 12 kD protein, but its biologic activities are exerted by a tetramer. IL-16 is a chemoattractant for CD4 ⁺ T cells, monocytes, and eosinophils. On T cells, IL-16 upregulates CD25 and class II expression, and also inhibits HIV-1 replication <i>in vitro</i> by repressing the transcription of the HIV-1 long terminal repeat. IL-16 is expressed by lymphocytes, macrophages, eosinophils, mast cells, epithelial cells, and fibroblasts. CD4 and CD9 are the receptors of IL-16.

Product Details

Verified Reactivity	Human
Reported Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Peptide corresponding to amino acids 615 to 630 (RRKSLQSKETTAAGDS) of IL-16
Formulation	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.01 EU/µg of the protein (<0.001 ng/µg of the protein) as determined by the LAL test.
Preparation	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
Concentration	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤ 0.5 µg per million cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Additional reported applications (for the relevant formats) include: ELISA ² , inhibition of T cell chemotaxis ² and immunohistochemical staining of frozen lymph node sections ³ .
Application References	<ol style="list-style-type: none">1. Cruikshank WW, <i>et al.</i> 1994. <i>P. Natl Acad Sci USA</i> 91:5109. (ICFC)2. Keane J, <i>et al.</i> 1998. <i>J. Immunol.</i> 160:5945. (Block, ELISA)3. Chupp GL, <i>et al.</i> 1998. <i>J. Immunol.</i> 161:3114. (Block, IHC)4. Stoitzner P, <i>et al.</i> 2001. <i>J. Invest. Dermatol.</i> 116:641. (ICFC)5. Ren F, <i>et al.</i> 2005. <i>J. Immunol.</i> 174:2738. (ICFC)
RRID	AB_2563454 (BioLegend Cat. No. 519108)

Antigen Details

Structure	12 kD protein with a PDZ domain, product of the cleavage of pro-IL-16 by caspase-3, forms tetramers.
Distribution	Lymphocytes, macrophages, eosinophils, mast cells, epithelial cells, and fibroblasts.
Function	Chemoattractant for CD4 ⁺ T cells, monocytes, and eosinophils. Upregulates CD25 and class II expression on T cells. Inhibits HIV-1 replication.
Ligand/Receptor	CD4.
Cell Type	Eosinophils, Epithelial cells, Fibroblasts, Lymphocytes, Macrophages, Mast cells, Tregs
Biology Area	Immunology, Innate Immunity
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none"> 1. Bellon M, <i>et al.</i> 2010. <i>Blood</i> 115:2441. 2. Rofani C, <i>et al.</i> 2009. <i>Stem Cells Dev.</i> 18:671. 3. Cruikshank W and Little F. 2008. <i>Crit. Rev. Immunol.</i> 28:467. 4. Gu Y, <i>et al.</i> 2008. <i>J. Immunol.</i> 181:4418. 5. McFadden C, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:6439. 6. Qi JC, <i>et al.</i> 2006. <i>Blood</i> 107:135.
Gene ID	3603

Related Protocols

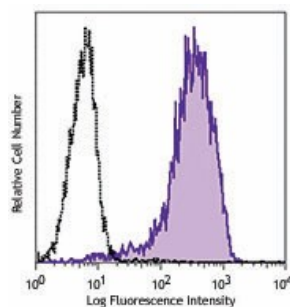
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

PE anti-human IL-16, Purified anti-human IL-16, Ultra-LEAF™ Purified anti-human IL-16

Product Data



Human peripheral blood lymphocytes were fixed, permeabilized, and stained with Ultra-LEAF™ purified anti-human IL-16 (clone 14.1, filled histogram) or purified mouse IgG2a, κ (open histogram), followed by anti-mouse IgG PE.

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