

Recombinant Human IL-17A (ELISA Std.)

Catalog# / Size	570509 / 4 pack
Regulatory Status	RUO
Other Names	Interleukin 17A, IL17A, IL-17, Cytotoxic T lymphocyte-associated antigen 8 (CTLA-8)
Description	IL-17A is the founding member of the IL-17 family, a group of six structurally related pro-inflammatory cytokines. IL-17A, secreted by activated CD4+ Th17 cell subpopulation, elicits multiple biological activities on a variety of cells including: the induction of IL-6, IL-8, G-CSF, and PGE2 production in epithelial, endothelial or fibroblasts; the enhancement of surface expression of ICAM-1 in fibroblasts; activation of NF-κB and costimulation of T cell proliferation. Recent studies demonstrated that, in mice, activated IL-17-secreting CD4+ helper T cells (Th17 cells) mediate an autoimmune arthritis that clinically and immunologically resembles rheumatoid arthritis (RA). Human IL-17A shows 63%, 63% and 72% amino acid sequence identity to rat IL-17A, mouse IL-17A and a protein encoded by the ORF13 gene of herpesvirus Saimiri (HVS), respectively. Both recombinant and natural IL-17A have been shown to exist as a disulfide-linked homodimeric glycoprotein containing two ~16 kD monomers.

Product Details

Source	Human IL-17A, amino acids Ile20-Ala155 (Accession # NM_002190) was expressed in <i>E. coli</i> and renatured from inclusion bodies.
Molecular Mass	The 137 amino acid N-terminal methionylated protein has a predicted molecular mass of 15,666 Da. This protein exists as a disulfide-linked homodimer. The DTT-reduced protein migrates at approximately 16kDa by SDS-PAGE. The non-reduced protein migrates
Purity	Purity is >98% as determined by SDS PAGE, Coomassie stained with Invitrogen SimplyBlue SafeStain.
Formulation	Lyophilized in sterile-filtered PBS, pH 7.2, containing 1% BSA, 0.09% sodium azide, and protease inhibitors.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
Storage & Handling	Upon receipt, store unopened vials between 2°C and 8°C immediately and use within 12 months from date of receipt. Prior to use, reconstitute the lyophilized powder with 0.2 ml of PBS containing a carrier protein (e.g., 1% BSA, protease free), pH 7.4. Re-cap vial, vortex. Allow the reconstituted standard to sit at room temperature for 15 minutes, vortex again to mix completely. The reconstituted standard stock solution can be aliquoted into polypropylene vials and stored at -70°C for up to one month. Do not re-use diluted standards. Use a manual defrost freezer and avoid repeated freeze thaw cycles.
Application	ELISA
Recommended Usage	Each lot of this protein is quality control tested by ELISA assay . For use as an ELISA standard, a standard curve comprised of doubling dilutions from 2000 pg/ml to 15 pg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	This IL-17A protein is useful as a standard in a human IL-17A sandwich ELISA in conjunction with the monoclonal antibody pair: unlabeled purified clone BL127 antibody (capture) and biotinylated clone BL23 antibody (detection).
Product Citations	1. Haug V, <i>et al.</i> 2020. Transplantation. e260:104. PubMed

Antigen Details

Structure	Cytokine; dimer
Cell Sources	activated T cell subpopulation
Cell Targets	Fibroblasts, epithelial and endothelial cells, stromal cells
Receptors	IL-17R (CDw217)
Biology Area	Cell Biology, Immunology, Neuroinflammation, Neuroscience
Molecular Family	Cytokines/Chemokines
Antigen References	1. Hirota K, <i>et al.</i> 2007. <i>J Exp Med.</i> 204:41. 2. Furuzawa-Carballeda J, <i>et al.</i> 2007. <i>Autoimmun Rev.</i> 6:169. 3. Witowski J, <i>et al.</i> 2007. <i>Kidney Int.</i> 71:514. 4. Gaffen SL, <i>et al.</i> 2006. <i>Vitam Horm.</i> 74:255. 5. Hymowitz S, <i>et al.</i> 2001. <i>EMBO J.</i> 20:5332.

Related Protocols

[Sandwich ELISA Protocol](#)

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8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com

Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587