Datasheet

Cat. No. P1030

IL-17A, human recombinant protein

Information

Gene ID	3605
Accession #	Q16552
Alternate Names	Cytotoxic T-lymphocyte-associated antigen 8, CLTA-8 , IL-17A
Source	*Escherichia coli.*
M.Wt	Approximately 31.0 kDa, a disulfide-linked homodimer of two 132 amino acid polypeptide chains.
AA Sequence	GITIPRNPGC PNSEDKNFPR TVMVNLNIHN RNTNTNPKRS SDYYNRSTSP WNLHRNEDPE RYPSVIWEAK CRHLGCINAD GNVDYHMNSV PIQQEILVLR REPPHCPNSF RLEKILVSVG CTCVTPIVHH VA
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 4 mM HCl to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by inducing IL-6 secretion of murine NIH/3T3 cells is less than 7.5 ng/ml, corresponding to a specific activity of > 1.3×10^5 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5 μg	100 μg	500 μg
IL-17A, human recombinant protein	5 μg	100 μg	500 μg

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Quality Control

Purity	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuIL-17 as determined by LAL method.

Description

Human Interleukin-17A (IL-17A) is encoded by the IL17A gene located on the chromosome 6 and belongs to the IL-17 family that contains IL-17A, IL-17B, IL-17C, IL-17D, IL-17E and IL-17F. They have a similar protein structure, with four highly conserved cysteine residues critical to their 3-dimensional shape, but no sequence similarity to any other known cytokines. Interleukin 17 is a T cell-expressed pleiotropic cytokine that exhibits a high degree of homology to a protein encoded by the ORF13 gene of herpesvirus Saimiri. Mature IL-17 containing one potential N-linked glycosylation site. Both recombinant and natural IL-17 have been shown to exist as disulfide linked homodimers. At the amino acid level, IL-17 exhibits 63 % amino acid identity with mouse IL-17. High levels of human IL-17 were induced from primary peripheral blood CD4+ T cells upon stimulation and they can induce stromal cells to produce proinflammatory and hematopoietic cytokines.

Reference

1. Mungall AJ, Palmer SA, Sims SK, et al. 2003. Nature, 425: 805-11.

2. Kolls JKandLinden A. 2004. Immunity, 21: 467-76.

3. Fossiez F, Djossou O, Chomarat P, et al. 1996. J Exp Med, 183: 2593-603.

4. Yao Z, Painter SL, Fanslow WC, et al. 1995. J Immunol, 155: 5483-6.

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