Recombinant Human Interleukin-17

#R00056

Size: 5 μg/100 μg/500 μg

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.

Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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.

AA Sequence

GITIPRNPGCPNSEDKNFPRTVMVNLNIHNRNTNTNP
KRSSDYYNRSTSPWNLHRNEDPERYPSVIWEAKCR
HLGCINADGNVDYHMNSVPIQQEILVLRREPPHCPNS
FRLEKILVSVGCTCVTPIVHHVA

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.

Product Specification

Synonyms	Cytotoxic T-lymphocyte-associated antigen 8, CLTA-8, IL-17A
Accession	Q16552
GeneID	3605
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 31.0 kDa, a disulfide-linked homodimer of two 132 amino acid polypeptide chains.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
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.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 1 × PBS, 5% Trehalose, 0.02% Tween-20.
Endotoxin	Less than 1 EU/μg of rHuIL-17 as determined by LAL method.