

Interleukin-13 Recombinant Protein | IL-13 recombinant protein

Human Interleukin-13 Recombinant

CATALOG #	HOST
AAA76093	E Coli (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)

PRODUCT SYNONYMS

Interleukin-13; Human Interleukin-13 Recombinant; il13; il-13; nc30; interleukin-13; IL-13 recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)
Purity/Purification	>95%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant Interleukin-13 was lyophilized from a 0.2um filtered concentrated (1mg/ml) solution in PBS, pH 7.2.
Sequence	MALLLTTVIA LTCLGGFASP GPVPPSTALR ELIEELVNIT QNQKAPLCNG SMVWSINLTA GMYCAALES INVSGCSAIE KTQRMLSGFC PHKVSAGQFS SLHVRDTKIE VAQFVKDLLL HLKCLFREGR FN
Sequence Length	146
Domain	4 helix cytokine core
Host Note	Optimized DNA sequence encoding Human Interleukin-13 mature chain was expressed in Escherichia Coli.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Molecular Weight Note	Native human Interleukin-13, generated by the proteolytic removal of the signal peptide and propeptide, the molecule has a calculated molecular mass of approximately 13 kDa. Recombinant IL-13 is a disulfide-linked monomer protein consisting of 115 amino acid residue subunits, and migrates as an approximately 13 kDa protein under non-reducing and reducing conditions in SDS-PAGE.
Preparation and Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20 degree C. Upon reconstitution, this cytokine can be stored in working aliquots at 2 degree - 8 degree C for one month, or at -20 degree C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for IL-13 recombinant protein

Mouse IL13 is produced primarily by activated Th2 cells. Human IL13 is expressed in activated T- helper cells (resembling Th0, Th1, Th2), and T-cells expressing CD8. The alpha chain of the IL13 receptor has weak binding activity for IL13. High affinity receptors are formed when the receptor alpha chains of IL13 and IL4 receptors are coexpressed. The receptors for IL13 and IL4 share a component, a common gamma subunit that is found also in the IL2 receptor. Different IL13 receptor structures have been shown to exist on various cell types and the IL13 receptor may share more than one component with IL4 receptor. IL13 down-modulates macrophage activity, reducing the production of pro-inflammatory cytokines and chemokines in response to IFN-gamma or bacterial lipopolysaccharides. IL13 enhances the production of the IL1 receptor antagonist IL1ra. IL13 also decreases the production of nitric oxide by activated macrophages, leading to a decrease in parasitocidal activity. IL13 induces differentiation of human monocytes, enhances survival time in culture, and also induces differentiation and proliferation and Isotype switching in B-cells.

Product Categories/Family for IL-13 recombinant protein	Cytokines
References	• IL-13-induced oxidative stress via microglial nadph oxidase contributes to death of hippocampal neurons in vivo .J. Immunol., Oct 2009; 183: 4666 - 4674. • <i>involvement of IL-13 in tobacco smoke induced changes in the structure and function of rat intrapulmonary airways</i> .Am. J. Respir. Cell Mol. Biol., Sep 2009; 10.1165/rcmb.2009-0117 degree C. • <i>disruption of th2 immunity results in a gender-specific expansion of IL-13 producing accessory nk cells during helminth infection</i> .J. Immunol., Sep 2009; 183: 3906 - 3914. • <i>distinct structural requirements for interleukin-4 (il-4) and IL-13 binding to the shared IL-13 receptor facilitate cellular tuning of cytokine responsiveness</i> .J. Biol. Chem., Sep 2009; 284: 24289 - 24296. • IL-13 receptor 2 regulates the immune and functional response to nipposstrongylus brasiliensis infection .J. Immunol., Aug 2009; 183: 1934 - 1939.

NCBI AND UNIPROT INFORMATION

NCBI GI #	26787978
NCBI GeneID	3596
NCBI Accession #	NP_002179.2
NCBI GenBank Nucleotide #	NM_002188.2
UniProt Accession #	P35225; O43644; Q4VB52; Q9UDC7; Q4VB50; Q4VB51; Q4VB53
Molecular Weight	15,816 Da
NCBI Official Full Name	interleukin-13
UniProt Protein Name	Interleukin-13
UniProt Gene Name	IL13
UniProt Synonym Gene Names	NC30; IL-13
UniProt Entry Name	IL13_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/il13-recombinant-protein-e-coli/76093>