Datasheet for ABIN2667457

IL-13 Protein (AA 26-131)

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Overview

Quantity:	10 µg
Target:	IL-13 (IL13)
Protein Characteristics:	AA 26-131
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Multiplex Assay (MA)

Product Details

Purity:	Purity is >98 % , as determined by Coomassie stained SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Endotoxin level is <0.1 EU/µg (<0.01ng/µg) protein as determined by the LAL method.

Target Details

Target:	IL-13 (IL13)
Alternative Name:	IL-13 (IL13 Products)
Background:	Mouse IL-13 was initially cloned from cDNA libraries of activated T cells and was designated as P600. IL-13 is an immunoregulatory cytokine secreted predominantly by activated T(H)2 cells, and it is a key mediator in the pathogenesis of allergic inflammation. IL-13 shares many functional properties with IL-4, and they share a common receptor subunit, the alpha subunit of

Target Details

	the IL-4 receptor (IL-4Ralpha). IL-13 mediates its effects by interacting with a complex receptor system comprised of IL-4Ralpha and two IL-13 binding proteins, IL-13Ralpha1 and IL-13Ralpha2. Ligation of the IL-13 receptor complex results in signaling via the insulin receptor substrate (IRS)-1 and 2 and STAT-6 pathways. Interleukin-13 (IL-13), like IL-4, is a cytokine produced by T(H)2 type helper T cells in response to signaling through the T cell antigen receptor and by mast cells and basophils upon cross-linkage of the high-affinity receptor for immunoglobulin E (IgE). IL-13 has been implicated in airway hypersensitivity and mucus hypersecretion, inflammatory bowel disease, and parasitic nematode expulsion.
Molecular Weight:	The 106 amino acid recombinant protein has a predicted molecular mass of 11,677 Da. The DTT-reduced protein migrates at approximately 9kDa and the non-reduced protein migrates at approximately 8kDa by SDS-PAGE. The N-terminal amino acid is Serine.
Pathways:	JAK-STAT Signaling, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Proton Transport

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Biological activity: ED50 = 1.5 to 3.5 ng/ml, corresponding to a specific activity of 6.6 to 2.85 x 105 units/mg, as determined by the dose dependent stimulation of TF-1 cells proliferation.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Reconstitution:	For maximum results, quick spin vial prior to opening. The protein can be aliquoted and stored from -20 °C to -70 °C. Stock solutions can also be prepared at 50-100 µg/mL in sterile buffer (PBS, HPBS, DPBS, or EBSS) containing carrier protein such as 0.2-1 % BSA or HSA and stored in working aliquots at -20 °C to -70 °C.
Buffer:	0.22 µm filtered protein solution is in 10 mM NaH_2PO_4, 150 mM NaCl, pH 7.2.
Handling Advice:	Avoid repeated freeze/thaw cycles.
Storage:	-20 °C
Storage Comment:	Unopened vial can be stored between 2°C and 8°C for one month, at -20°C for six months, or at -70°C for one year.