IL-13 Variant Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: ,

Cat. No.:

RBG10013V002	(2 µg)
RBG10013V010	(10 µg)
RBG10013V100	(100 µg)

Description

IL-13 is an immunoregulatory cytokine produced primarily by activated Th2 cells, and also by mast cells and NK cells. Targeted deletion of IL-13 in mice resulted in impaired Th2 cell development and indicated an important role for IL-13 in the expulsion of gastrointestinal parasites. IL-13 exerts anti-inflammatory effects on monocytes and macrophages and it inhibits the expression of inflammatory cytokines such as IL-1beta, TNF-alpha, IL-6 and IL-8. IL-13 has also been shown to enhance B cell proliferation and to induce isotype switching, resulting in increased production of IgE. Blocking of IL-13 activity inhibits the pathophysiology of asthma. Human and murine IL-13 are cross-species reactive. A variant of IL-13 shows enhanced functional activity compared with the wild type IL-13. PeproTech's genetic variant, termed Recombinant Human IL-13 Variant, is a mature 115 amino acid protein with a substitution of Q for R at position 112. The calculated molecular weight of Recombinant Human IL-13 Variant is 12.6 kDa.

Research topic

Immune Response, Infection and Inflammation, Oncology

Amino Acid Sequence

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MSPGPVPPST ALRELIEELV NITQNQKAPL CNGSMVWSIN LTAGMYCAAL ESLINVSGCS AIEKTQRMLS GFCPHKVSAG
QFSSLHVRDT KIEVAQFVKD LLLHLKKLFR EGQFN
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Source

E. coli

Purity

98%

Biological Activity

This IL-13 analog shows a two fold increase, relative to wild type IL-13, in bioactivity as measured by the in-vitro dose dependent activation of STAT6 and IL-13 dependent gene induction in transfected A201.1 cells. This analog has also been shown to exhibit increased in vivo activity compared to wild type IL-13, as measured by the induction of airway hyper-responsiveness.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.5-1.0 mg/ml. Note: Allow the reconstituted vial to sit at 4oC for at ? 2 hours before use. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

HEADQUARTERS: BioVendor Laboratorní medicína, a.s.	Karasek 1767/1	621 00 Brno CZECH REPUBLIC	Phone: +420-549-124-185 Fax: +420-549-211-460	E-mail: Web:	info@biovendor.com sales@biovendor.com www.biovendor.com
AUSTRIA: BioVendor GesmbH	Nußdorfer Straße 20/10	1090 Vienna AUSTRIA	Phone: +43-1-89090-25 Fax: +43-1-89090-2515	E-mail:	infoAustria@biovendor.com
GERMANY, SWITZERLAND: BioVendor GmbH	Otto-Hahn-Straße 16	34123 Kassel GERMANY	Phone: +49-6221-433-9100 Fax: +49-6221-433-9111	E-mail:	infoEU@biovendor.com
USA, CANADA AND MEXICO: BioVendor LLC	128 Bingham Rd. Suite 1300	Asheville, NC 28806 USA	Phone: +1-828-575-9250 +1-800-404-7807 Fax: +1-828-575-9251	E-mail:	infoUSA@biovendor.com