

#### Recombinant Human IL-13 Variant

Catalog # PBG10193

Specification

#### Recombinant Human IL-13 Variant - Product Information

#### Recombinant Human IL-13 Variant - Additional Information

# **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-1 $\beta$ , 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 is cross-species reactive. A variant of IL-13 shows enhanced functional activity compared with the wild type IL-13. PeproTech's genetic variant, termed human IL-13 analog, is a mature 114 amino acid protein with a substitution of Q for R at position 112.

## **Biological**Activity

This IL-13 analog shows a two fold increase, relative to wild type IL-13, in bioactivity as measured by the <em>in-vitro</em> 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 <em>in vivo</em> activity compared to wild type IL-13, as measured by the induction of airway hyper-responsiveness.

#### Authenticity

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

## **Endotoxin**

Endotoxin level is  $<0.1 \text{ ng}/\mu\text{g}$  of protein ( $<1\text{EU}/\mu\text{g}$ ).

### **Protein Content**

Verified by UV Spectroscopy and/or SDS-PAGE gel.

# **Storage**

-20°C

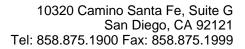
### **Precautions**

Recombinant Human IL-13 Variant is for research use only and not for use in diagnostic or therapeutic procedures.

#### Recombinant Human IL-13 Variant - Protocols

Provided below are standard protocols that you may find useful for product applications.

Western Blot





- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

**Recombinant Human IL-13 Variant - Images**