

## 32-20371: Recombinant Human IL-13 Variant(Discontinued)

**Reactivity :** Human, Mouse

**Alternative Name :**

### Description

**Source:** *E. coli* 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 are cross-species reactive. A variant of IL-13 shows enhanced functional activity compared with the wild type IL-13. The 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.

### Product Info

**Amount :** 2  $\mu$ g / 10  $\mu$ g

**Purification :** Purity:  $\geq$  98% by SDS-PAGE gel and HPLC analyses.

**Content :** This recombinant protein is supplied in lyophilized form.

**Amino Acid :** MSPGPVPPST ALRELIEELV NITQNQKAPL CNGSMVWSIN LTAGMYCAAL ESLINVSGCS AIEKTQRMLS  
GFCPHKVSAG QFSSLHVRDT KIEVAQFVKD LLLHLKKLFR EGQFN

### Application Note

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.