

## PRODUCT DATA SHEET



Bioworld Technology, Inc.

### Recombinant Human Interleukin-13 Variant (rHuIL-13 variant)

Catalog Number: PR1061

Source: Escherichia coli.

Quantity: 2µg/10µg/1.0mg

#### Description

The human IL-13 cDNA encodes a 132 amino acid protein containing a proposed 20 amino acid signal peptide. Human IL-13 shares approximately 30% amino acid sequence homology to human IL-4 and the two cytokines exhibit overlapping biological activities. Human IL-13 is produced by activated Th0, Th1-like Th2-like and CD8 T cells. Similarly to IL-4, IL-13 has multiple effects on the differentiation and functions of monocytes/macrophages. IL-13 can suppress the cytotoxic functions of monocytes/macrophages. It can also suppress the production of proinflammatory cytokines and upregulate the production of IL-1ra by monocytes/macrophages.

#### Molecular Weight:

Approximately 12.5 kDa, a single non-glycosylated polypeptide chain containing 114 amino acids, with a substitution of Q for R at position 112 compared with the wild type IL-13.

#### Purity:

>95% by SDS-PAGE and HPLC analyses.

#### Biological Activity:

Fully biologically active when compared to standard. The ED50 as determined by the dose-dependent proliferation of TF-1 cells was < 1.0 ng/ml, corresponding to a specific activity of > 1×10<sup>6</sup> units/mg. This analog has also been shown to exhibit increased in vivo activity compared to wild type IL-13.

#### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

#### Formulation:

Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.2, containing 5% trehalose.

#### AA Sequence:

S P G P V P P S T A L R E L I E E L V N I T Q N Q K A P  
L C N G S M V W S I N L T A G M Y C A A L E S L I N V  
S G C S A I E K T Q R M L S G F C P H K V S A G Q F S  
S L H V R D T K I E V A Q F V K D L L L H L K K L F R  
E G Q F N

#### Endotoxin:

Less than 1EU/µg of rHuIL-13 variant as determined by LAL method.

#### Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

#### Storage:

This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

#### Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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