

# Human IL13RA2 / IL13R Protein (His & Fc Tag)

Catalog Number: 10350-H03H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CD213A2; CT19; IL-13R; IL13BP

### Protein Construction:

A DNA sequence encoding the extracellular domain of human IL13R $\alpha$ 2 (NP\_000631.1) (Met 1-Leu 342) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

**Source:** Human

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 75 % as determined by SDS-PAGE

### Bio Activity:

**Measured by its binding ability in a functional ELISA. Immobilized recombinant human IL13RA2 at 8  $\mu$ g/ml (100  $\mu$ l/well) can bind IL13 with a linear range of 0.25-8.0 ng/ml .**

### Endotoxin:

< 1.0 EU per  $\mu$ g of the protein as determined by the LAL method

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Asp 27

### Molecular Mass:

The recombinant human IL13R $\alpha$ 2/Fc is a disulfide-linked homodimeric protein after proteolytic removal of the signal peptide. The reduced monomer consists of 563 amino acids and predicts a molecular mass of 65 kDa. As a result of glycosylation, the rh IL13R $\alpha$ 2/Fc monomer migrates as an approximately 90-100 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

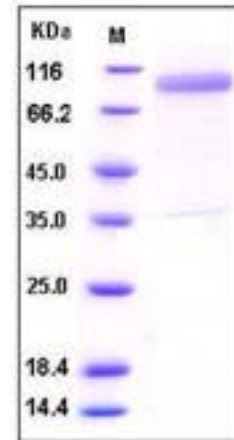
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Interleukin-13 receptor subunit alpha-2 (IL13RA2/IL-13RA2) is also known as also known as cluster of differentiation 213A2 (CD213A2), IL-13 receptor subunit alpha-2, IL-13R subunit alpha-2, and IL-13RA2. The IL13RA2 is often overexpressed in brain tumors, making IL13ra2 one of the vaccine targets for immunotherapy of glioma. IL13RA2/IL-13RA2 is a cancer-associated receptor that is present in greater than 80% of High Grade Astrocytomas (HGA) and has recently been recognized as a cytokine that predisposes breast cancer cells to metastasize. Expression of IL13R $\alpha$ 2 was rapidly lost from the surface of transduced cells grown in culture. The loss appeared to be related to ligands present in fetal bovine serum in the medium. None of the malignant glioma cell lines cultivated in vitro and tested to date exhibited the IL13R $\alpha$ 2 receptor. A recombinant virus (R5111) enters cells via its interaction with the IL13R $\alpha$ 2 receptor in a manner that cannot be differentiated from the interaction of wild-type virus with its receptors.

## References

1. Zhou G, *et al.* (2005) Characterization of a recombinant herpes simplex virus 1 designed to enter cells via the IL13R $\alpha$ 2 receptor of malignant glioma cells. *J Virol.* 79(9): 5272-7.
2. Osawa M, *et al.* (2000) Characterization of the mouse interleukin-13 receptor alpha1 gene. *Immunogenetics.* 51(11): 974-81.
3. Nair BG, *et al.* (2011) Nanotechnology platforms; an innovative approach to brain tumor therapy. *Med Chem.* 7(5): 488-503.

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