Human IL13RA2 / IL13R Protein (His & Fc Tag)

Catalog Number: 10350-H03H

General Information

Gene Name Synonym:

CD213A2; CT19; IL-13R; IL13BP

Protein Construction:

A DNA sequence encoding the extracellular domain of human IL13Rα2 (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 human IL13Ra2-Fch (Cat: 10350-H03H) at 2 μg/mL (100 μl/well) can bind biotinylated human IL13 (Cat: 10369-HNAC), The EC_{50} of bind biotinylated human IL13 (Cat: 10369-HNAC) is 4-20 ng/mL.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Predicted N terminal: Asp 27

Molecular Mass:

The recombinant human IL13Rα2/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 IL13Rα2/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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

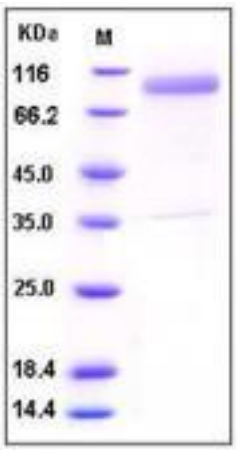
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 8% of High Grade Astrocytomas (HGA) and has recently been recognized as a cytokine that predisposes breast cancer cells to metastasize. Expression of IL13Rα2 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 IL13Rα2 receptor. A recombinant virus (R5111) enters cells via its interaction with the IL13Rα2 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 IL13Ralpha2 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.