Human IL13RA2 / CD213A2 Protein (ECD, His Tag)

Catalog Number: 10350-H08H

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 IL13Rα2 (NP_000631.1) (Met1-Leu342) was expressed with the a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 90 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

Bio Activity:

1.Measured by its ability to inhibit IL13-dependent proliferation of TF-1 human erythroleukemic cells. The ED50 for this effect is typically 5-30 ng/mL.
2.Loaded Recombinant Human IL-13 Protein, hFc Tag (Cat. No. 10369-H01H) on ProA Biosensor, can bind Recombinant Human IL-13 R alpha 2/IL13RA2 Protein, His Tag (Cat. No. 10350-H08H) with an affinity constant of 1.99 nM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).
3.Loaded anti-IL-3R alpha/CD123 scFv-hIgG1 Fc on proA Biosensor, can bind Recombinant Human IL-13 R alpha 2/IL13RA2 Protein, His Tag (Cat. No. 10350-H08H) with an affinity constant of 4.640 nM as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).
4.Immobilized Anti- IL-13 R alpha 2/IL13RA2 antibody, human IgG1 at 2 μg/mL (100 μL/well) can bind Recombinant Human IL13RA2 / CD213A2 Protein (ECD, His Tag) (Cat: 10350-H08H), the EC50 is 1.0-4.0 ng/mL (QC tested).

Endotoxin:

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

Predicted N terminal: Asp 27

Molecular Mass:

The recombinant human IL13Rα2 consists of 325 amino acids and predicts a molecular mass of 38 KDa. As a result of glycosylation, it migrates as an approximately 49.7 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

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℃.

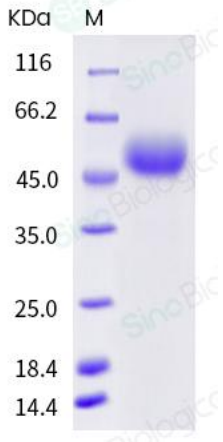
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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 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 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.