

Recombinant Human CD221 / IGF1R (aa 954-1367)

Catalog Number: 10164-H20B1



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CD221, IGF1R, JTK13, MGC142170, MGC142172, MGC18216

Protein Construction:

A DNA sequence encoding the human IGF1R (NP_000866.1) cytoplasmic domain (Met 954-Cys 1367) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect cells

QC Testing

Purity: >88 % as determined by SDS-PAGE.

Bio-activity:

The specific activity was determined using a Poly (Glu:Tyr, 4:1) synthetic peptide substrate.

The specific activity is >208 nmol/min/mg.

Endotoxin:

<1.0 EU per µg 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: Met

Molecular Mass:

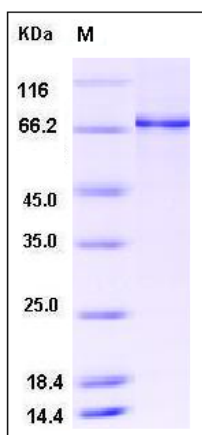
The recombinant human IGF1R (aa 954-1367) /GST chimera consists of 651 amino acids and has a calculated molecular mass of 74.6 KDa. It migrates as an approximately 70 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from 0.2µm filtered solution of 20mM Tris, 500mM NaCl, pH 7.4, 20%glycerol, 0.3mM DTT

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

SDS-PAGE:



Usage Guide

Storage:

Store it under sterile conditions at -70°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.

Protein Description

The insulin-like growth factor-1 receptor (IGF1R) is a disulfide-linked heterotetrameric transmembrane protein consisting of two α and two β subunits, and among which, the α subunit is extracellular while the β subunit has an extracellular domain, a transmembrane domain and a cytoplasmic tyrosine kinase domain. IGF1 receptor is a receptor tyrosine kinase (RTK) expressed in all cell types and tissues, and plays a critical role in transformation events during embryogenesis, development and pathogenesis processes. IGF1R become tyrosine phosphorylated and enzymatically activated either in response to IGF1 and 2 ligands or because of the activity of the Src tyrosine kinase, and subsequently initiates an intracellular signaling cascade (MAPK) that leads to gene expression changes and correspondent cellular responses. It is commonly overexpressed in most malignant tissues including breast, prostate, pancreas and affect cancer cell proliferation, adhesion, metastasis and survival by mediating the anti-apoptotic pathway. Accordingly, IGF1R is regarded as potential anti-tumor therapeutic target, and monoclonal antibodies are probably the most promising and specific therapeutic agents.

References

1. Tollefsen SE. et al., 1991, Biochemistry. 30: 48-54.
2. Peterson JE. et al., 1996, J Biol Chem. 271: 31562-71.
3. Peruzzi F. et al., 1999, Mol Cell Biol. 19: 7203-15.
4. Gross JM. et al., 2003, Cancer Metastasis Rev. 22: 327-36.
5. Sachdev D. et al., 2004, J Biol Chem. 279: 5017-24.

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