

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived human IGF-I R/IGF1R protein
Met1-Asn932 with a C-terminal 10-His tag
Accession # P08069

N-terminal Sequence Analysis Glu31 and Asp741

Predicted Molecular Mass 104 kDa (single chain), 81 kDa (α subunit) and 23 kDa (β subunit)

SPECIFICATIONS

SDS-PAGE 150 kDa, 120 kDa and 48 kDa, reducing conditions

Activity Measured by its binding ability in a functional ELISA.
When Recombinant Human IGF-I R/IGF1R (Catalog # 305-GR) binds to Recombinant Human IGF-I/IGF-1 (Catalog # 291-G1) with an ED_{50} of 2.50-30.0 ng/mL.

Endotoxin Level <0.10 EU per 1 μ g of the protein by the LAL method.

Purity >95%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 μ m filtered solution in NaH_2PO_4 , NaCl, EDTA and Tween®-20 with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 μ g/mL in sterile PBS.

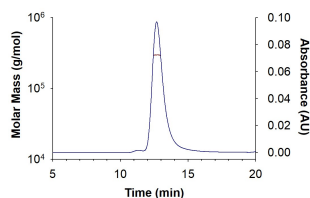
Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

SEC-MALS



Recombinant Human IGF-I R/IGF1R (Histidine-tagged) Protein SEC-MALS.
Recombinant Human IGF1R/C-His Protein (Catalog # 305-GR) has a molecular weight (MW) of 296.9 kDa as analyzed by SEC-MALS, suggesting that this protein is a heterotetramer. MW may differ from predicted MW due to post-translational modifications (PTMs) present (i.e. Glycosylation).

SEC-MALS Data	
Retention Time	12.5 - 12.9
	104.0 kDa (single chain), 81.0 kDa (α subunit), 23.0 kDa (β subunit)
MW - Predicted (Monomer)	
MW - MALS	296.9 kDa
Polydispersity	1.000
System Suitability: BSA Monomer 66.4 ± 3.32 kDa	Pass

BACKGROUND

IGF-I receptor is a disulfide-linked heterotetrameric transmembrane protein consisting of two α and two β subunits. Both the α and β subunits are encoded within a single receptor precursor cDNA. The proreceptor polypeptide is proteolytically cleaved and disulfide-linked to yield the mature heterotetrameric receptor. The α subunit of IGF-I receptor is extracellular while the β subunit has an extracellular domain, a transmembrane domain and a cytoplasmic tyrosine kinase domain. The IGF-I receptor is highly expressed in all cell types and tissues. Essentially all of the biological activities of IGF-I and II have been shown to be mediated via IGF-I R.

References:

1. Rechler, M.M. and S.P. Nissley (1990) Insulin-Like Growth Factors, in *Peptide Growth Factors and Their Receptors I*, M.B. Sporn and A.B. Roberts, editors, Springer-Verlag, New York, New York, p. 263.