

Insulin-like growth factor 1 receptor (IGF1R) Recombinant Protein | IGF1R recombinant protein

Recombinant Human Insulin-like growth factor 1 receptor (IGF1R), partial

CATALOG # AAA113810	HOST E Coli or Yeast or Baculovirus or Mammalian Cell
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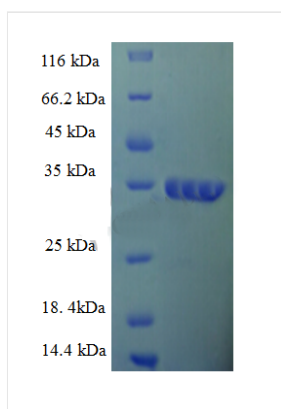
PRODUCT SYNONYMS

Insulin-like growth factor 1 receptor (IGF1R); Recombinant Human Insulin-like growth factor 1 receptor (IGF1R); partial; Insulin-like growth factor I receptor ;IGF-I receptor; CD221; IGF1R recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Sequence Positions	763-931aa; Partial
Sequence	YNITDPEELE TEYPFFESRV DNKERTVISN LRPFTLYRID IHSCNHEAEK LGCSASNFVF ARTMPAEGAD DIPGPVTWEP RPENSIFLKW PEPENPNGLI LMYEIKYGSQ VEDQRECVSR QEYRKYGGAK LNRLNPGNYT ARIQATSLSG NGSWTDPVFF YVQAKTGYE
Species	Homo sapiens (Human)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for IGF1R recombinant protein	Receptor tyrosine kinase which mediates actions of insulin-like growth factor 1 (IGF1). Binds IGF1 with high affinity and IGF2 and insulin (INS) with a lower affinity. The activated IGF1R is involved in cell growth and survival control. IGF1R is crucial for tumor transformation and survival of malignant cell. Ligand binding activates the receptor kinase, leading to receptor autophosphorylation, and tyrosines phosphorylation of multiple substrates, that function as signaling adapter proteins including, the insulin-receptor substrates (IRS1 2), Shc and 14-3-3 proteins. Phosphorylation of IRSs proteins lead to the activation of two main signaling pathways: the PI3K-AKT PKB pathway and the Ras-MAPK pathway. The result of activating the MAPK pathway is increased cellular proliferation, whereas activating the PI3K pathway inhibits apoptosis and stimulates protein synthesis. Phosphorylated IRS1 can activate the 85 kDa regulatory subunit of PI3K (PIK3R1), leading to activation of several downstream substrates, including protein AKT PKB. AKT phosphorylation, in turn, enhances protein synthesis through mTOR activation and triggers the antiapoptotic effects of IGFIR through phosphorylation and inactivation of BAD. In parallel to PI3K-driven signaling, recruitment of Grb2 SOS by phosphorylated IRS1 or Shc leads to recruitment of Ras and activation of the ras-MAPK pathway. In addition to these two main signaling pathways IGF1R signals also through the Janus kinase signal transducer and activator of transcription pathway (JAK STAT). Phosphorylation of JAK proteins can lead to phosphorylation activation of signal transducers and activators of transcription (STAT) proteins. In particular activation of STAT3, may be essential for the transforming activity of IGF1R. The JAK STAT pathway activates gene transcription and may be responsible for the transforming activity. JNK kinases can also be activated by the IGF1R. IGF1 exerts inhibiting activities on JNK activation via phosphorylation and inhibition of MAP3K5 ASK1, which is able to directly associate with the IGF1R. When present in a hybrid receptor with INSR, binds IGF1. PubMed:12138094 shows that hybrid receptors composed of IGF1R and INSR isoform Long are activated with a high affinity by IGF1, with low affinity by IGF2 and not significantly activated by insulin, and that hybrid receptors composed of IGF1R and INSR isoform Short are activated by IGF1, IGF2 and insulin. In contrast, PubMed:16831875 shows that hybrid receptors composed of IGF1R and INSR isoform Long and hybrid receptors composed of IGF1R and INSR isoform Short have similar binding characteristics, both bind IGF1 and have a low affinity for insulin.
References	Discovery of 2,4-bis-arylamino-1,3-pyrimidines as insulin-like growth factor-1 receptor (IGF-1R) inhibitors. Buchanan J.L., Newcomb J.R., Carney D.P., Chaffee S.C., Chai L., Cupples R., Epstein L.F., Gallant P., Gu Y., Harmange J.C., Hodge K., Houk B.E., Huang X., Jona J., Joseph S., Jun H.T., Kumar R., Li C. , Lu J., Menges T., Morrison M.J., Novak P.M., van der Plas S., Radinsky R., Rose P.E., Sawant S., Sun J.R., Surapaneni S., Turci S.M., Xu K., Yanez E., Zhao H., Zhu X. Bioorg. Med. Chem. Lett. 21:2394-2399(2011)

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557665
NCBI GeneID	3480
NCBI Accession #	NP_000866.1
NCBI GenBank Nucleotide #	NM_000875.4
UniProt Accession #	P08069; Q14CV2; Q9UCC0; B1B5Y2
Molecular Weight	21.4 kDa
NCBI Official Full Name	insulin-like growth factor 1 receptor isoform 1
NCBI Official Synonym Full Names	insulin like growth factor 1 receptor
NCBI Official Symbol	IGF1R
NCBI Official Synonym Symbols	IGFR; CD221; IGFIR; JTK13
NCBI Protein Information	insulin-like growth factor 1 receptor
UniProt Protein Name	Insulin-like growth factor 1 receptor
UniProt Gene Name	IGF1R

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/igf1r-recombinant-protein-e-coli/113810>