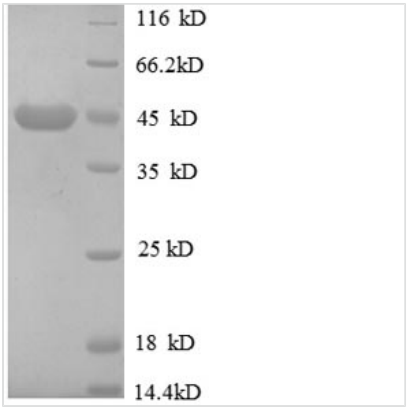
Recombinant Human Cation-independent mannose-6-phosphate receptor (IGF2R), partial

Product Code	CSB-EP011093HU
Relevance	Transport of phosphorylated lysosomal enzymes from the Golgi complex and the cell surface to lysosomes. Lysosomal enzymes bearing phosphomannosyl residues bind specifically to mannose-6-phosphate receptors in the Golgi apparatus and the resulting receptor-ligand complex is transported to an acidic prelyosomal compartment where the low pH mediates the dissociation of the complex.
Abbreviation	Recombinant Human IGF2R protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P11717
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	KKERRETVISKLTTCCRRSSNVSYKYSKVNKEEETDENETEWLMEEIQLPPPR QGKEGQENGHITTKSVKALSSLHGDDQDSEDEVLTIPEVKVHSGRGAGAESS HPVRNAQSNALQEREDDRVGLVRGEKARKGKSSSAQQKTVSSTKLVSFHDD SDEDLLHI
Research Area	Transport
Source	E.coli
Target Names	IGF2R
Expression Region	2328-2491aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal GST-tagged
Mol. Weight	45.3kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The expression vector recombined with the recombinant DNA was transformed into the E.coli for expression. The recombinant DNA resulted from the fusion of the gene coding for the 2328-2491aa of the human IGF2R protein and the N-terminal GST tag gene. The product was purified and isolated to get the recombinant human IGF2R protein with N-terminal GST tag. The purity of this recombinant IGF2R protein reaches up to 90%. Under SDS-PAGE condition, this recombinant IGF2R protein showed a band with a molecular weight of about 45 kDa on the gel.

IGF2R is a gene encoding a protein named Insulin-like growth factor 2 receptor (IGF2R, also called the cation-independent mannose-6-phosphate receptor. Mutation or loss of heterozygosity of this gene has been association with risk of hepatocellular carcinoma. IGF2R protein is a receptor for both insulin-like growth factor 2 (IGF2) and mannose 6-phosphate. This protein is a multifunctional protein receptor that binds IGF2 at the cell surface and mannose-6-phosphate (M6P)-tagged proteins in the trans-Golgi network. A study has revealed an unappreciated biological function of the IGF2-IGF2R axis in regulating the fate of maturing macrophages to acquire either a pro- or anti-inflammatory phenotype. It suggests that targeting IGF2R activation can potentially be used to reduce inflammation in the treatment of inflammatory disease.

Shelf Life

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