

## IGF2R Protein, Human (Domain 1-7, HEK293, His-Avi)

Cat. No.:	HY-P701061
Synonyms:	CI-MPR; M6PR; MPR 300; IGF-II receptor; M6P/IGF2R; CD222; MPRI
Species:	Human
Source:	HEK293
Accession:	P11717 (E47-P1079)
Gene ID:	3482
Molecular Weight:	120-160 kDa

### PROPERTIES

Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.22 $\mu\text{m}$ filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/ $\mu\text{g}$ , determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	<p>IGF2R Protein serves as a crucial mediator in cellular processes, orchestrating the transport of phosphorylated lysosomal enzymes from the Golgi complex and the cell surface to lysosomes. Lysosomal enzymes carrying phosphomannosyl residues specifically bind to mannose-6-phosphate receptors in the Golgi apparatus, forming a receptor-ligand complex that is transported to an acidic prelysosomal compartment. The low pH in this compartment facilitates the dissociation of the complex, after which the receptor is recycled back to the Golgi for further trafficking through its interaction with the retromer. Additionally, IGF2R binds IGF2 and acts as a positive regulator of T-cell coactivation by directly interacting with DPP4. The protein further engages with HA-I and HA-II plasma membrane adapters, demonstrating its versatile molecular interactions. Its binding to the heterotrimeric retromer cargo-selective complex highlights its involvement in retrograde trafficking from endosomes to the Golgi apparatus, underscoring its essential role in intracellular transport and cellular homeostasis.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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