Insulin-like growth factor I

Catalog No: #AP78342

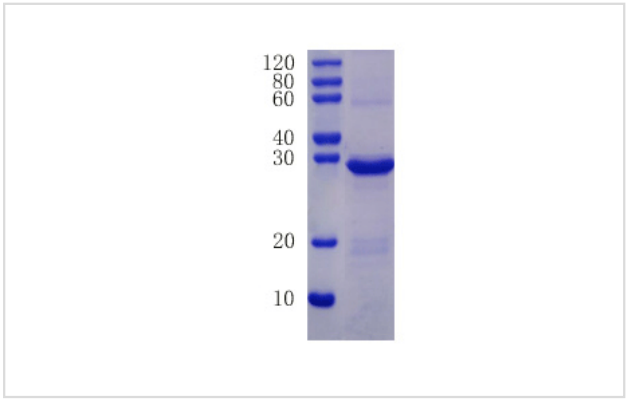
Package Size: #AP78342-1 50ug #AP78342-2 100ug #AP78342-3 1mg

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	Insulin-like growth factor I
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% by SDS-PAGE
Species Reactivity	Mouse
Immunogen Description	49-118AA
Other Names	Igf-1,Somatomedin
Accession No.	P05017Gene name:Igf1
Uniprot	P05017
GeneID	16000;
Calculated MW	7.7
Tag Info	His
Formulation	50mM NaH2PO4, 500mM NaCl Buffer with 500mM Imidazole,10%glycerol(PH8.0)
Storage	Store at -20C. (Avoid repeated freezing and thawing.)Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Images



Background

The insulin-like growth factors, isolated from plasma, are structurally and functionally related to insulin but have a much higher growth-promoting activity. May be a physiological regulator of [1-14C]-2-deoxy-D-glucose (2DG) transport and glycogen synthesis in osteoblasts. Stimulates glucose transport in bone-derived osteoblastic (PyMS) cells and is effective at much lower concentrations than insulin, not only regarding glycogen and DNA synthesis but also with regard to enhancing glucose uptake. May play a role in synapse maturation (By similarity). Ca(2+)-dependent exocytosis of IGF1 is required for sensory perception of smell in the olfactory bulb (PubMed:21496647). Acts as a ligand for IGF1R. Binds to the alpha subunit of IGF1R, leading to the activation of the intrinsic tyrosine kinase activity which autophosphorylates tyrosine residues in the beta subunit thus initiatiating a cascade of down-stream signaling events leading to activation of the PI3K-AKT/PKB and the Ras-MAPK pathways. Binds to integrins ITGAV:ITGB3 and ITGA6:ITGB4. Its binding to integrins and subsequent ternary complex formation with integrins and IGFR1 are essential for IGF1 signaling. Induces the phosphorylation and activation of IGFR1, MAPK3/ERK1, MAPK1/ERK2 and AKT1.

References

Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Note: This product is for in vitro research use only