

Insulin-Like Growth Factor I (30-41)
Synthetic Peptide
Catalog # SP2787b**Specification**

Insulin-Like Growth Factor I (30-41) - Product Information

Primary Accession	Q28933
Other Accession	P51458 , P17647 , Q95222 , O6GUL6 , O6IVA5
Sequence	NH2-GYGSSRRAPQT-COOH

Insulin-Like Growth Factor I (30-41) - Additional Information**Other Names**

Insulin-like growth factor I, IGF-I, Somatomedin, IGF1

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Insulin-Like Growth Factor I (30-41) - Protein Information**Name** IGF1**Function**

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. Ca(2+)-dependent exocytosis of IGF1 is required for sensory perception of smell in the olfactory bulb. 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 initiating a cascade of down-stream signaling events leading to activation of the PI3K-AKT/PKB and the Ras- MAPK pathways. Binds to integrins ITGA5: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 (By similarity). As part of the MAPK/ERK signaling pathway, acts as a negative regulator of apoptosis in cardiomyocytes via promotion of STUB1/CHIP-mediated ubiquitination and degradation of ICER-type isoforms of CREM (By similarity).

Cellular Location

Secreted {ECO:0000250|UniProtKB:P05017}.

Insulin-Like Growth Factor I (30-41) - Images