DATASHEET
Version 20181206

IGF-I, Mouse

Cat. No.: Z03178-50

Size: 50.0 ug

Synonyms: Insulin-like Growth Factor-I, Somatamedin C, IGF-IA

Description:

Insulin-like Growth Factor I (IGF-I) is a single chain 7 kDa growth-promoting polypeptide originally identified as somatomedin-c. It belongs to the IGF family of peptides, which also includes IGF-II and insulin. The gene expression of IGF-I is mainly regulated by Growth Hormone, and IGF-I executes its functions via signaling through transmembrane tyrosine receptors (IGF Receptors). Most circulating IFG-I is associated with the IGF Binding Protein 3 (IGFBP-3), and the IGFBPs may inhibit the actions of IGFs by competing against the IGF Receptors. IGF-I is active in post-natal and adult animals, and is crucial for somatic growth, as IGF-I null mice show marked retardation in utero. IGF-I is involved in carcinogenesis, and related to prostate cancer as well.
Recombinant mouse Insulin-like Growth Factor I (rmIGF-I) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 71 amino acids. A fully biologically active molecule, rmIGF-I has a molecular mass of 7.8kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MGPETLCGAE LVDALQFVCG PRGFYFNKPT GYGSSIRRAP
00041 QTGIVDECCF RSCDLRRLEM YCAPLKPTKA A
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Source: *E. coli*

Species: Mouse

Biological Activity: ED_{50} <10ng/mL, measured by a cell proliferation assay using FDC-P1 cells, corresponding to a specific activity of >1×10^5 units/mg.

Molecular Weight: 7.8 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH_2O at 100 µg/mL.

Purity: > 95% by SDS-PAGE analysis.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant mouse Insulin-like Growth Factor I (rmIGF-I) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmIGF-I remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.

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