Proteins

Inhibitors



Product Data Sheet

IGFBP-5 Protein, Cynomolgus (HEK293, His)

Cat. No.: HY-P77394

Synonyms: Insulin-like growth factor-binding protein 5; IBP-5; IGFBP-5; IBP5

Species: Cynomolgus
Source: HEK293

Accession: G7PLE3 (L21-E272)

Gene ID: 101926781

Molecular Weight: Approximately 35 kDa

PROPERTIES

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LGSFVHCEPC DEKALSMCPP SPLGCELVKE PGCGCCMTCA LAEGQSCGVY TERCAQGLRC LPRQDEEKPL HALLHGRGVC LNEKSYREQV KIERDSREHE EPTTSEMAEE TYSPKIFRPK HTRISELKAE AVKKDRRKKL TQSKFVGGAE NTAHPRVISA PCRRHMEASL PEMRQESEQG QELKASPRMV PRAVYLPNCD RKGFYKRKQC K P S R G R K R G I CWCVDKYGMK LPGMEYVDGD

FQCHTFDSSN VE

Biological Activity

Measured by its ability to inhibit the biological activity of IGF-I on MCF 7 human breast cancer cells. The ED₅₀ for this effect is $1.063 \mu g/mL$ in the presence of 14 ng/mL rhIGF-I, corresponding to a specific activity is 940.734 U/mg.

Appearance

Lyophilized powder

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH₂O. 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

IGFBP-5 protein plays a pivotal role in modulating the activity of insulin-like growth factors (IGFs) by extending their half-life. Within cell culture, IGFBP-5 exhibits a dual regulatory function, demonstrating the capacity to either inhibit or stimulate

the growth-promoting effects of IGFs. This dynamic influence underscores the intricacy of IGFBP-5's impact on cellular processes. Notably, IGFBP-5 achieves these regulatory effects by modifying the interaction between IGFs and their cell surface receptors, thereby finely regulating the signaling pathways associated with cellular growth and development. The nuanced interplay between IGFBP-5 and IGFs highlights the sophisticated control mechanisms that govern cellular responses to growth factors, shedding light on the multifaceted role of IGFBP-5 in orchestrating cellular growth and proliferation.

Caution: Product has not been fully validated for medical applications. For research use only.

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