IGF-BP4 Human (BTI-Tn-5B1-4) Hi-5 Insect cells*

Product Data Sheet

Type: Recombinant
Source: (BTI-Tn-5B1-4) Hi-5 Insect cells*
Species: Human
Other names: Insulin-like Growth Factor-Binding Protein 4, IBP-4, HT29-IGF-BP, colon cancer cell growth inhibitor

Cat. No.:

RBG10191005	(5 µg)
RBG10191020	(20 µg)
RBG10191100	(100 µg)

Description

IGF-BPs control the distribution, function and activity of IGFs in various cell tissues and body fluids. IGF-BP4 is the major IGF-BP produced by osteoblasts, and is found in the epidermis, ovarian follicles, and other tissues. IGF-BP4 inhibits the activity of IGF-I and IGF-II by binding in a manner that results in the formation of complexes with reduced ability to signal through cell surface IGF receptors. IGF-BP4 can inhibit the growth of chick pelvis cartilage and HT29 colon adenocarcinoma cells by blocking the mitogenic actions of IGFs, and has also been shown to reduce colony formation by colorectal cancer cells via an IGF-independent pathway. The biological effects of IGF-BP4 can be regulated by Pregnancy Associated Plasma Protein A (PAPP-A), which reduces IGF-BP4/IGF binding affinity by proteolytically cleaving IGF-BP4. The modulation of IGF-BP4 activity by PAPP-A is an important component in the regulation of ovarian folliculogenesis and in the growth inhibition of responding ovarian cancer cells. Recombinant Human IGF-BP4 is a 25.7 kDa protein consisting of 237 amino acid residues including, the IGF-BP domain and thyroglobulin type-I domain.

Research topic

Apoptosis, Diabetology - Other Relevant Products, Oncology

Amino Acid Sequence

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DEAIHCPPCS EEKLARCRPP VGCEELVREP GCGCCATCAL GLGMPCGVYT PRCGSGLRCY PPRGVEKPLH TLMHGQGVCM
ELAEIEAIQE SLQPSDKDEG DHPNNSFSPC SAHDRRCLQK HFAKIRDRST SGGKMKVNGA PREDARPVPQ GSCQSELHRA
LERLAASQSR THEDLYIIPI PNCDRNGNFH PKQCHPALDG QRGKCWCVDR KTGVKLPGGL EPKGELDCHQ LADSFRE
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Source

(BTI-Tn-5B1-4) Hi-5 Insect cells*

Purity

95%

Biological Activity

Determined by its ability to inhibit IGF-I induced proliferation of FDC-P1 cells.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

HEADQUARTERS: BioVendor Laboratorní medicína, a.s.	Karasek 1767/1	621 00 Brno CZECH REPUBLIC	Phone: +420-549-124-185 Fax: +420-549-211-460	E-mail: Web:	info@biovendor.com sales@biovendor.com www.biovendor.com
AUSTRIA: BioVendor GesmbH	Nußdorfer Straße 20/10	1090 Vienna AUSTRIA	Phone: +43-1-89090-25 Fax: +43-1-89090-2515	E-mail:	infoAustria@biovendor.com
GERMANY, SWITZERLAND: BioVendor GmbH	Otto-Hahn-Straße 16	34123 Kassel GERMANY	Phone: +49-6221-433-9100 Fax: +49-6221-433-9111	E-mail:	infoEU@biovendor.com
USA, CANADA AND MEXICO: BioVendor LLC	128 Bingham Rd. Suite 1300	Asheville, NC 28806 USA	Phone: +1-828-575-9250 +1-800-404-7807 Fax: +1-828-575-9251	E-mail:	infoUSA@biovendor.com