Datasheet for ABIN2666958

IGFBP2 Protein (AA 35-305, N-Term)

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Overview

Quantity:	10 µg
Target:	IGFBP2
Protein Characteristics:	AA 35-305, N-Term
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Flow Cytometry (FACS)

Product Details

Purity:	> 95 % , as determined by Coomassie stained SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 0.01 ng per µg cytokine as determined by the LAL method.

Target Details

Target:	IGFBP2
Alternative Name:	IGFBP-2 (IGFBP2 Products)
Background:	Seven IGFBPs have been described to modulate the IGF activity. IGFBPs transport IGFs, which means they may inhibit mitogenesis, differentiation, survival, and other IGF-stimulated events. IGFBPs are structurally characterized by three domains: the amino-terminal, the carboxi-terminal, and a central L-domain. Members of the IGFBP family exhibit 67 - 70 % structural

Target Details

	homology. The greatest homology among the IGFBPs is in the N- and C-terminal regions. Some IGFBPs bind to the extracellular matrix (IGFBP-2, IGFBP-3, IGFBP-5, and IGFBP-6). In fact, a heparin-binding domain (HBD) has been identified in the C-terminal region of these binding proteins. In addition to C-terminal HBD, IGFBP-2 contains a HBD located in the linker region. The arginine glycine aspartic acid (RGD) sequence is present in IGFBP-1 and IGFBP-2. This RGD sequence binds to the αVβ1 integrin. IGFBP-2 has a high affinity for IGF-I/IGF-II. It is the second most abundant circulating IGFBP and is expressed in several mammalian tissues. IGFBP-2 and other IGFBPs stimulate biological responses that are independent of their binding to IGFs. IGFBP-2 levels are associated with reduced adipose tissue mass and improved glucose metabolism both in human and mouse models. The HBD of IGFBP-2 has IGF binding-independent biological activity in the growing skeleton. IGFBP-2 mice have impaired bone formation, reduced trabecular bone volume fraction, altered microarchitecture, and low bone turnover. IGFBP-2 is overexpressed in a wide variety of human malignancies, which include glioma, prostate cancer, lung cancer, colorectal cancer, ovarian cancer, adrenocortical tumor, breast cancer, and leukemia.
Molecular Weight:	The 292 amino acid recombinant protein has a predicted molecular mass of approximately 31.7 kDa. The protein migrates approximately at 40 kDa in DTT-reducing conditions and 43 kDa in non-reducing conditions by SDS-PAGE. The predicted N-terminal amino acid
Pathways:	Myometrial Relaxation and Contraction, Growth Factor Binding, Activated T Cell Proliferation

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Biological activity: ED50 = 0.03 - 0.18 µg/mL as determined by the inhibition of MCF-7 cell proliferation induced by mouse IGF-II (18 ng/mL).
Restrictions:	For Research Use only

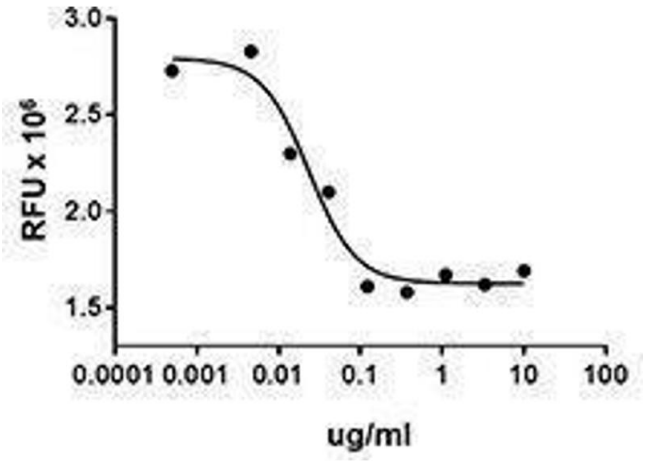
Handling

Format:	Liquid
Reconstitution:	For maximum results, quick spin vial prior to opening. The protein can be aliquoted and stored at -20 °C to -70 °C. Stock solutions can also be prepared at 50 - 100 µg/mL in sterile buffer (PBS, HPBS, DPBS, and EBSS) containing carrier protein such as 0.2 - 1 % BSA or HSA and stored in working aliquots at -20 °C to -70 °C.
Buffer:	0.22 µm filtered protein solution is < 30 % ACN and 0.1 % TFA.

Handling

Handling Advice:	Avoid repeated freeze/thaw cycles.
Storage:	-20 °C
Storage Comment:	Unopened vial can be stored between 2°C and 8°C for three months, at -20°C for six months, or at -70°C for one year.

Images



ELISA

Image 1.