

Insulin Like Growth Factor Binding Protein 3 (IGFBP3) Active Protein | IGFBP3 active protein

Active Insulin Like Growth Factor Binding Protein 3 (IGFBP3)

CATALOG #
AAA149226

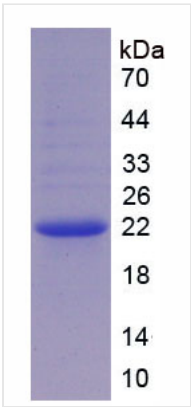
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

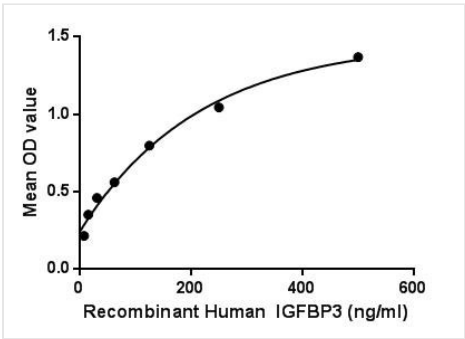
Insulin Like Growth Factor Binding Protein 3 (IGFBP3); Active Insulin Like Growth Factor Binding Protein 3 (IGFBP3); BP53; IBP3; Growth Hormone-Dependent Binding Protein; Acid Stable Subunit Of The 140 K IGF Complex; IGFBP3 active protein

PRODUCT SPECIFICATIONS

Purity/Purification	> 90%
Form/Format	Freeze-Dried Powder; 20mM Tris, 150mM NaCl, pH8.0, Containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Gly135~Thr277
Sequence Length	291
Applicable Applications for IGFBP3 active protein	Activity Assay, Cell Culture
Species	Human
Tag	N-terminal His-Tag
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



SDS-PAGE



Activity

Figure. The binding activity of IGFBP3 with EGFR. Insulin-like growth factor-binding protein 3, also known as IGFBP3 is one of six IGF binding proteins (IGFBP1 to IGFBP6) that have highly conserved structures and bind the insulin-like growth factors IGF-1 and IGF-2 with high affinity. Within tissues, IGFBP3 can bind IGF1 and IGF2 released by many cell types, and block their access to the IGF-1 receptor (IGF1R), which is activated by both IGFs. IGFBP3 also interacts with cell-surface proteins, affecting cell signaling from outside the cell or after internalization, and also enters the cell nucleus where it binds to nuclear hormone receptors and other ligands. Besides, Epidermal Growth Factor Receptor (EGFR) has been identified as an interactor of IGFBP3, thus a binding ELISA assay was conducted to detect the interaction of recombinant human IGFBP3 and recombinant human EGFR. Briefly, IGFBP3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to EGFR-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-IGFBP3 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of IGFBP3 and EGFR was shown in Figure 1, and this effect was in a dose dependent manner.

ADDITIONAL INFORMATION

Product Categories/Family for IGFBP3 active protein	Metabolic pathway; Tumor immunity
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NCBI AND UNIPROT INFORMATION

NCBI GI #	62243068
NCBI GeneID	3486
NCBI Accession #	NP_000589.2
NCBI GenBank Nucleotide #	NM_000598.4
UniProt Accession #	P17936
Molecular Weight	Predicted MW: 17.6kDa Accurate MW: 22kDa
NCBI Official Full Name	insulin-like growth factor-binding protein 3 isoform b
NCBI Official Synonym Full Names	insulin like growth factor binding protein 3
NCBI Official Symbol	IGFBP3
NCBI Official Synonym Symbols	IBP3; BP-53
NCBI Protein Information	insulin-like growth factor-binding protein 3
UniProt Protein Name	Insulin-like growth factor-binding protein 3
UniProt Gene Name	IGFBP3

UniProt Synonym Gene Names	IBP3; IBP-3; IGF-binding protein 3; IGFBP-3
UniProt Entry Name	IBP3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/active-protein/insulin-like-growth-factor-binding-protein-3-igfbp3/149226>