

Human IGFBP3 protein, His tag

Cat. No. GTX00231-pro

Applications Functional Assay**Species** Human**Package**

10 µg

Applications

Application Note

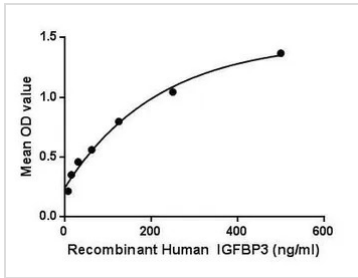
Insulin-like growth factor-binding protein 3, also known as IGFBP3 is one of six IGF binding proteins (IGFBP1 to IGFBP6) that have highly conserved structures and bind the insulin-like growth factors IGF-1 and IGF-2 with high affinity. Within tissues, IGFBP3 can bind IGF1 and IGF2 released by many cell 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 100 µl were then transferred to EGFR-coated microtiter wells and incubated for 2h at 37°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°C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of IGFBP3 and EGFR was in a dose dependent manner.

Observed MW (kDa) 22 kDa.

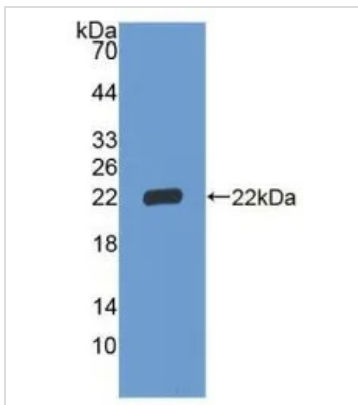
Properties

Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Gly135~Thr277 (NP_000589.2)**Expression System** E. coli**Purity** > 90%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

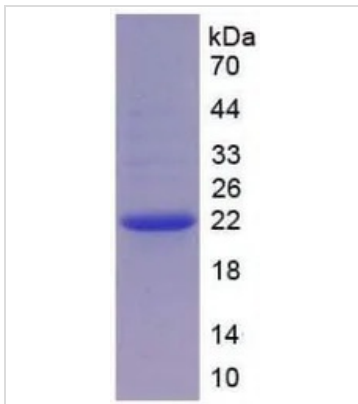
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DATA IMAGES

GTx00231-pro Functional Assay Image

Functional ELISA analysis of GTx00231-pro Human IGFBP3 protein which can bind immobilized EGFR protein.


GTx00231-pro Image

WB analysis of GTx00231-pro Human IGFBP3 protein.


GTx00231-pro Image

SDS-PAGE analysis of GTx00231-pro Human IGFBP3 protein.



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