

Cytokines

Human Recombinant Fetuin B

Fetuin B, His tag



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Catalog #100-1333

100 µg

Product Description

Fetuin B is a protease inhibitor belonging to the fetuin family of proteins within the cystatin superfamily. The structure of fetuin B includes two cystatin domains (CY1 and CY2) connected by a linker with a CPDCP-trunk and a C-terminal region (CTR) (Cuppari et al.). It contains a His-residue tag at the carboxyl end of the polypeptide chain. Fetuin B is a plasma protein originating in the liver (Denecke et al.) and is thought to have functions in female fertility, metabolism, and liver disease. Fetuin B inhibits the activity of ovastacin, a metalloprotease which causes the hardening of the zona pellucida resulting in female infertility (Karmilin et al.). Fetuin B was also observed to increase apoptosis and inhibit migration and invasion of prostate cancer cells in in vitro and in vivo settings (Zhan et al.). Studies have found that elevated serum fetuin B is linked to non-alcoholic fatty liver disease (NAFLD) (Zhu et al.).

Product Information

Alternative Names: 16G2, Gugu, IRL685

Accession Number: NP_055190.2 (Met19-Pro382) was expressed with a polyhistidine tag at the C-terminus.

Amino Acid Sequence: MSPPQLALNP SALLSRGCND SDVLAVAGFA LRDINKDRKD GYVLRNLNRVN DAQEYRRGGL GSLFYLTLDV LETDCHVLRK KAWQDCGMRI FFESVYGQCK AIFYMNNPSR VLYLAAYNCT LRPVSKKKIY MTCPCPSSI PTDSSNHQVL EAATESLAKY NNENTSKQYS LFKVTRASSQ WVGPSYFVE YLIKESPCTK SQASSCSLQS SDSVPVGLCK GSLTRTHWEK FSVTCDFFE SQAPATGSEN SAVNQKPTNL PKVEESQQKN TPPTDPSKA GPRGSVQYLP DLDDKNSQEK GPQEAFPVHL DLTTNPQGET LDISFLFLEP MEEKLVVLPF PKEKARTAEC PGPAQNASPL VLPPAHHHHH HHHHH

Predicted Molecular Mass: 41.7 kDa

Species: Human

Formulation: Lyophilized from sterile PBS, pH 7.4. Trehalose (5 - 8%), mannitol, and 0.01% TWEEN® 80 are normally added as protectants before lyophilization.

Source: HEK293 cells

Specifications

Activity: Not available

Purity: ≥ 92%

Endotoxin Level: Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 1 EU/µg protein.

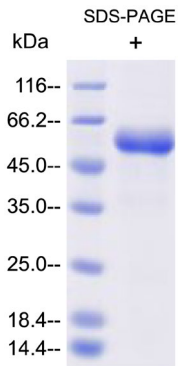
Preparation and Storage

Storage: Store at -20 to -80°C.

Stability: Stable as supplied for 12 months from date of receipt.

Preparation: Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.25 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than 1 month or at -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



Human Recombinant Fetuin B was resolved with SDS-PAGE under reducing (+) conditions and visualized by Coomassie Blue staining. Human Recombinant Fetuin B has a predicted molecular mass of 41.7 kDa and an apparent molecular mass of 55 kDa due to glycosylation.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines, or contact us at techsupport@stemcell.com.

References

- Cuppari A et al. (2019) Structure of mammalian plasma fetuin-B and its mechanism of selective metalloproteinase inhibition. *IUCrJ* 6(Pt 2): 317–30.
- Denecke B et al. (2003) Tissue distribution and activity testing suggest a similar but not identical function of fetuin-B and fetuin-A. *Biochem J* 376(Pt 1): 135–45.
- Karmilin K et al. (2019) Mammalian plasma fetuin-B is a selective inhibitor of ovastacin and meprin metalloproteinases. *Sci Reports* 2019 91 9(1): 1–12.
- Zhan K et al. (2020) Fetuin B overexpression suppresses proliferation, migration, and invasion in prostate cancer by inhibiting the PI3K/AKT signaling pathway. *Biomed Pharmacother* 131: 110689.
- Zhu J et al. (2017) Serum fetuin B level increased in subjects of nonalcoholic fatty liver disease: a case-control study. *Endocrine* 56(1): 208–11.

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