

Synonym

GREM1,CKTSF1B1,DAND2,DRM,PIG2

Source

Human Gremlin, His Tag(GR1-H52H3) is expressed from human 293 cells (HEK293). It contains AA Lys 25 - Asp 184 (Accession # [NP_037504](#)).

Predicted N-terminus: Lys 25

Molecular Characterization

Gremlin(Lys 25 - Asp 184)
NP_037504 Poly-his

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 20.2 kDa. The protein migrates as 28-35 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in 10 mM Sodium Citrate, 1 mM EDTA, pH3.0 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

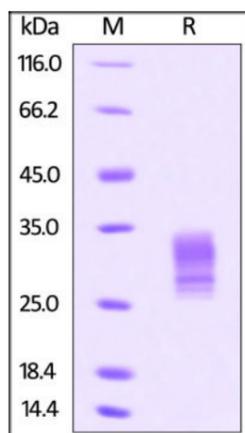
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

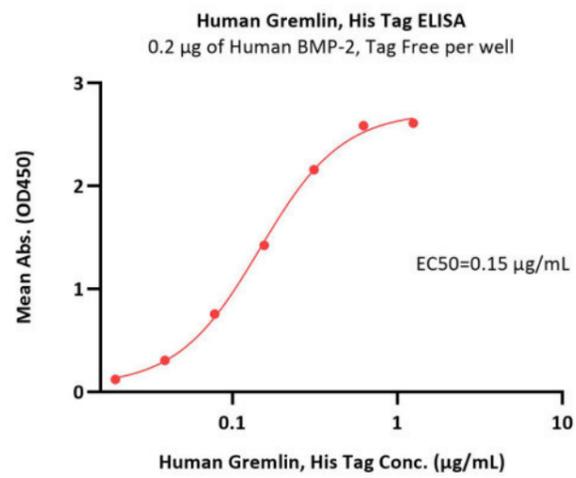
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Human Gremlin, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Human BMP-2, Tag Free (Cat. No. BM2-H4117) at 2 µg/mL (100 µL/well) can bind Human Gremlin, His Tag (Cat. No. GR1-H52H3) with a linear range of 0.02-0.313 µg/mL (QC tested).

Background

Gremlin is also known as Cysteine knot superfamily 1, BMP antagonist 1 (CKTSF1B1), DAN domain family member 2 (DAND2), Down-regulated in Mos-transformed cells protein (DRM), Increased in high glucose protein 2 (IHG-2), Cell proliferation-inducing gene 2 protein (PIG2) or Gremlin-1 (GREM1), which is highly expressed in small intestine, fetal brain and colon. Gremlin / GREM-1 interacts with SLIT1 and SLIT2 in a glycosylation-dependent manner. Gremlin may play an important role during carcinogenesis and metanephric kidney organogenesis, as a BMP antagonist required for early limb outgrowth and patterning in maintaining the FGF4-SHH feedback loop. Gremlin down-regulates the BMP4 signaling in a dose-dependent manner and acts as inhibitor of monocyte chemotaxis.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.