

## Product datasheet

# Recombinant human Gremlin 1 protein (Active) ab220546

[2 Images](#)

### Description

<b>Product name</b>	Recombinant human Gremlin 1 protein (Active)
<b>Biological activity</b>	Measured by its binding ability in a functional ELISA. Immobilized Human BMP-2, Tag Free at 2 µg/ml (100 µl/well) can bind ab220546 with a linear range of 0.8-81.9 ng/ml.
<b>Purity</b>	> 95 % SDS-PAGE.
<b>Endotoxin level</b>	< 1.000 Eu/µg
<b>Expression system</b>	HEK 293 cells
<b>Accession</b>	<b><u>O60565</u></b>
<b>Protein length</b>	Full length protein
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Human
<b>Sequence</b>	KKKGSQGAIPPPDKAQHNDSEQTQSPQQPGSRNRGRGQ GRGTAMPGEEVL ESSQEALHVTERKYLKRDWCKTQPLKQTIHEEGCNSRTIIN RFCYGCNS FYIPRHIRKEEGSFQSCSFCKPKKFTTMMVTLNCPQLQPP TKKKRVTRVK QCRCISIDLD
<b>Predicted molecular weight</b>	20 kDa including tags
<b>Amino acids</b>	25 to 184
<b>Tags</b>	His tag C-Terminus
<b>Additional sequence information</b>	This product is the mature full length protein from aa 25 to 184. The signal peptide is not included (NP_037504).

### Specifications

Our **Abpromise guarantee** covers the use of **ab220546** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** SDS-PAGE

Functional Studies

**Form**

Lyophilized

**Preparation and Storage**

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**Stability and Storage**

Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.40

Constituents: 94% PBS, 0.03% EDTA, 5% Trehalose

Lyophilized from 0.22 µm filtered solution.

This product is an active protein and may elicit a biological response in vivo, handle with caution.

**Reconstitution**

Reconstitute with sterile deionized water to a concentration of 200 µg/ml.

**General Info**

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**Function**

Cytokine that 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. Down-regulates the BMP4 signaling in a dose-dependent manner. Acts as inhibitor of monocyte chemotaxis.

**Tissue specificity**

Highly expressed in small intestine, fetal brain and colon. Expression is restricted to intestinal subepithelial myofibroblasts (ISEMFs) at the crypt base. In subjects with HMPS1, by contrast, GREM1 is expressed, not only in basal ISEMFs, but also at very high levels in epithelial cells (predominantly colonocytes), with expression extending most of the way up the sides of the crypt. Weakly expressed in brain, ovary, prostate, pancreas and skeletal muscle. In brain found in the region localized around the internal capsule in the large subcortical nuclei, including caudate, putamen, substantia nigra, thalamus and subthalamus. Predominantly expressed in normal cells including neurons, astrocytes and fibroblasts.

**Involvement in disease**

Polyposis syndrome, mixed hereditary 1

**Sequence similarities**

Belongs to the DAN family.

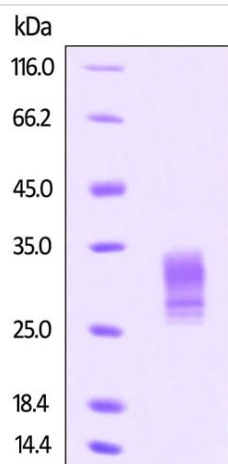
Contains 1 CTCK (C-terminal cystine knot-like) domain.

**Cellular localization**

Secreted.

**Images**

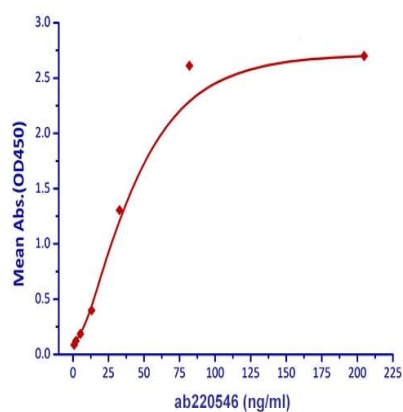
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SDS-PAGE analysis of ab220546 stained overnight with Coomassie Blue.

The protein migrates as 28-35 kDa on a SDS-PAGE gel under reducing conditions due to glycosylation.

SDS-PAGE - Recombinant human Gremlin 1 protein (Active) (ab220546)



Immobilized Human BMP-2, Tag Free at 2 µg/ml (100 µl/well) can bind ab220546 with a linear range of 0.8-81.9 ng/ml.

Functional Studies - Recombinant human Gremlin 1 protein (Active) (ab220546)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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