

Mouse Gremlin 1 ELISA Kit | GREM1 elisa kit

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CATALOG #
AAA263122

REACTIVITY
Mouse

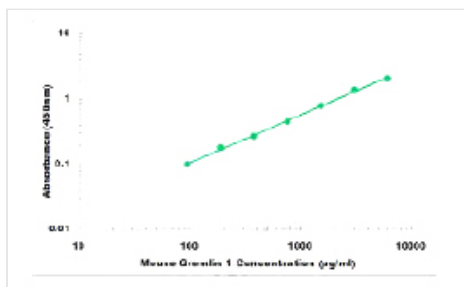
PRODUCT SYNONYMS

Gremlin 1; Mouse Gremlin 1 ELISA Kit; CKTSF1B1; DAND2; DRM; Gremlin-1; Cell proliferation-inducing gene 2 protein; Cysteine knot superfamily 1 BMP antagonist 1; DAN domain family member 2; Down-regulated in Mos-transformed cells protein; Increased in high glucose protein 2; IHG-2; GREM1 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Mouse
Specificity	The Mouse Gremlin 1 ELISA Kit allows for the detection and quantification of endogenous levels of natural and/or recombinant Mouse Gremlin 1 proteins within the range of 93.8 pg/ml - 6000 pg/ml.
Sequence Length	184
Samples	Cell Culture Supernates, Serum, Plasma
Sensitivity	<10 pg/ml
Preparation and Storage	Shipped and store at 4 degree C for 6 months, store at -20 degree C for one year. Avoid freeze/thaw cycles.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for GREM1 elisa kit	Principle of the Assay: The Mouse Gremlin 1 ELISA (Enzyme-Linked Immunosorbent Assay) kit is an in vitro enzyme-linked immunosorbent assay for the quantitative measurement of Mouse Gremlin 1 in Cell Culture Supernates, Serum, Plasma. This assay employs an antibody specific for Mouse Gremlin 1 coated on a 96-well plate. Standards and samples are pipetted into the wells and Gremlin 1 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Mouse Gremlin 1 antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of Gremlin 1 bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm. Background: Gremlin, also known as Increased in High Glucose protein 2 (IHG-2) and Down-regulated in Mos-transformed cells protein (Drm), is a 28 kDa member of the Dan family of secreted glycoproteins. Human Gremlin is synthesized as a 184 amino acid (aa) precursor that contains a 24 aa signal sequence and a 160 aa mature region. The mature region contains one potential site for N-linked glycosylation (Asn 42), a cysteine-rich region, and a cysteine knot motif (aa 94 - 184) whose structure is shared by members of the TGF-beta superfamily. Post-translational modifications include glycosylation and phosphorylation. Gremlin exists in both secreted and membrane-associated forms. There are two isoforms for human Gremlin. Isoform 1 is the standard protein, and in isoform 2, there is a deletion of aa 39 - 79. Human Gremlin shares 99% and 86% aa sequence identity with mouse and chick Gremlin, respectively. Northern blot analysis shows that Gremlin mRNA is highly expressed in the small intestine, fetal brain and colon, and weakly expressed in adult brain, ovary, prostate, pancreas and skeletal muscle. Gremlin functions as a bone morphogenetic protein (BMP) antagonist. It acts by binding to, and forming heterodimers with, BMP-2, BMP-4, and BMP-7, thus preventing them from interacting with their cell surface receptors. This mechanism is thought to be responsible for the pattern-inducing activity of Gremlin during embryonic development and to play a role in human diseases, such as diabetic nephropathy. However, intracellular BMP-independent mechanisms of action may mediate the ability of Gremlin to suppress transformation and tumorigenesis under certain experimental conditions. Gremlin also interacts with Slit proteins and acts as an inhibitor of monocyte chemotaxis. In addition, Gremlin has been found to be a proangiogenic factor expressed by endothelium.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	6754068
NCBI GeneID	23892
NCBI Accession #	NP_035954.1
NCBI GenBank Nucleotide #	NM_011824.4
UniProt Accession #	O70326
Molecular Weight	20,710 Da
NCBI Official Full Name	gremlin-1
NCBI Official Synonym Full Names	gremlin 1, DAN family BMP antagonist
NCBI Official Symbol	Grem1
NCBI Official Synonym Symbols	Id; Drm; Grem; Cktsf1b1
NCBI Protein Information	gremlin-1
UniProt Protein Name	Gremlin-1
UniProt Gene Name	Grem1
UniProt Synonym Gene Names	Cktsf1b1; Drm
UniProt Entry Name	GREM1_MOUSE

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.

