

#4383 Store at -20°C

Gremlin Antibody


Cell Signaling
TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	M	Transfected Only	21	Rabbit	#O60565	26585

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Gremlin Antibody detects transfected levels of total gremlin protein.

Species predicted to react based on 100% sequence homology:

Human, Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding Val170 of human gremlin. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Gremlin is a secreted antagonist of bone morphogenetic proteins that play important roles during development. Gene targeting generates gremlin deficient mice that die shortly after birth due to absent kidneys and defects in lung septation (1-3). Gremlin also plays a role in cardiomyogenesis and angiogenesis (4,5). TGF-β can induce gremlin expression under pathological conditions. Gremlin colocalizes with TGF-β in tubulointerstitial fibrosis associated with chronic allograft nephropathy and is expressed in diabetic nephropathy *in vivo* (6-8). Gremlin is widely expressed in cancer associated stromal cells and can enhance cancer cell proliferation (9).

Background References

1. Zúñiga, A. et al. (1999) *Nature* 401, 598-602.
2. Zuniga, A. et al. (2004) *Genes Dev* 18, 1553-64.
3. Michos, O. et al. (2004) *Development* 131, 3401-10.
4. Stabile, H. et al. (2007) *Blood* 109, 1834-40.
5. Kami, D. et al. (2008) *PLoS ONE* 3, e2407.
6. Carvajal, G. et al. (2008) *Transplant Proc* 40, 734-9.
7. McMahon, R. et al. (2000) *J Biol Chem* 275, 9901-4.
8. Dolan, V. et al. (2005) *Am J Kidney Dis* 45, 1034-9.
9. Sneddon, J.B. et al. (2006) *Proc Natl Acad Sci USA* 103, 14842-7.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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