

Basic Information

Product Name	Anti-Gremlin/GREM1 Antibody	
Gene Name	GREM1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	IHC, WB	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Gremlin 1, identical to the related rat and mouse sequences.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	21 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

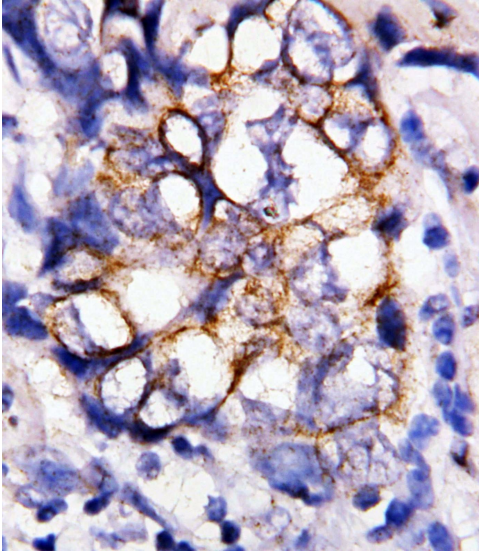
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

Gremlin, also known as Drm, is a highly conserved 20.7-kDa, 184 amino acid glycoprotein part of the DAN family and is a cysteine knot-secreted protein. Skeletal cells synthesize bone morphogenetic proteins (BMPs) and BMP antagonists. And Gremlin is expressed in osteoblasts and opposes BMP effects on osteoblastic differentiation and function in vitro. Gremlin 1 (GREM 1) is known for its antagonistic reaction with BMPs in the TGF beta signaling pathway. This gene inhibits BMP-2, BMP-4, and BMP-7. Inhibition by grem 1 of BMPs in mice allow the expression of fibroblast growth factors (FGFs) 4 and 8 and Sonic hedgehog (SHH) which are necessary for proper limb development. Gremlin 1 may play an oncogenic role especially in carcinomas of the uterine cervix, lung, ovary, kidney, breast, colon, pancreas, and sarcoma. Over-expressed gremlin 1 functions by interaction with YWHAH (its binding site for gremlin 1 was located between residues 61-80 and gremlin 1 binding site for YWHAH was found to be located between residues 1-67). Therefore, Gremlin 1 and its binding protein YWHAH could be good targets for developing diagnostic and therapeutic strategies against human cancers.

Selected Validation Data



IHC analysis of Gremlin/GREM1 using anti-Gremlin/GREM1 antibody (BA3387).

Gremlin/GREM1 was detected in a paraffin-embedded section of human breast cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-Gremlin/GREM1 Antibody (BA3387) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.