10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

BMP9 (GDF2) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2064A

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9UK05
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	47320
Antigen Region	8-37

Additional Information

Gene ID	2658
Other Names	Growth/differentiation factor 2, GDF-2, Bone morphogenetic protein 9, BMP-9, GDF2, BMP9
Target/Specificity	This BMP9 (GDF2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 8-37 amino acids from the N-terminal region of human BMP9 (GDF2).
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	BMP9 (GDF2) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GDF2
Synonyms	BMP9
Function	Potent circulating inhibitor of angiogenesis. Signals through the type I activin receptor ACVRL1 but not other Alks. Signaling through SMAD1 in endothelial cells requires TGF-beta coreceptor endoglin/ENG.

Cellular Location	Secreted
Tissue Location	Detected in blood plasma (at protein level).

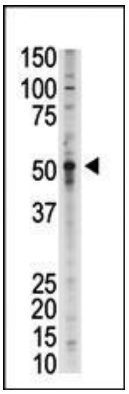
Background

GDF2 is a member of the bone morphogenetic protein (BMP) family and the TGF-beta superfamily. This group of proteins is characterized by a polybasic proteolytic processing site which is cleaved to produce a mature protein containing seven conserved cysteine residues. The members of this family are regulators of cell growth and differentiation in both embryonic and adult tissues. Studies in rodents suggest that this protein plays a role in the adult liver and in differentiation of cholinergic central nervous system neurons.

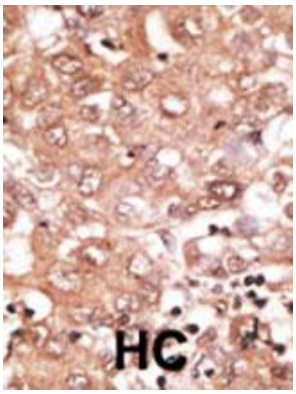
References

Majumdar, M.K., et al., J. Cell. Physiol. 189(3):275-284 (2001).
Lopez-Coviella, I., et al., Science 289(5477):313-316 (2000).
Miller, A.F., et al., J. Biol. Chem. 275(24):17937-17945 (2000).

Images

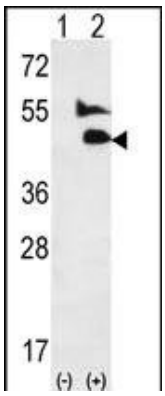


The anti-hGDF2 N-term Pab (Cat. #AP2064a) is used in Western blot to detect hGDF2 in mouse liver tissue lysate.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Western blot analysis of GDF2 (arrow) using rabbit polyclonal GDF2-K23 (Cat. #AP2064a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the GDF2 gene.



Citations

- Reduced circulating BMP10 and BMP9 and elevated endoglin are associated with disease severity, decompensation and pulmonary vascular syndromes in patients with cirrhosis
- Autocrine bone morphogenetic protein-9 signals through activin receptor-like kinase-2/Smad1/Smad4 to promote ovarian cancer cell proliferation.