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GDF9 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2069a

Product Information

Application	WB, IHC-P, E
Primary Accession	O60383
Other Accession	NP_005251
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	51444
Antigen Region	30-59

Additional Information

Gene ID	2661
Other Names	Growth/differentiation factor 9, GDF-9, GDF9
Target/Specificity	This GDF9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 30-59 amino acids from the N-terminal region of human GDF9.
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	GDF9 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GDF9
Function	Required for ovarian folliculogenesis. Promotes primordial follicle development. Stimulates granulosa cell proliferation. Promotes cell transition from G0/G1 to S and G2/M phases, through an increase of CCND1 and CCNE1 expression, and RB1 phosphorylation. It regulates STAR expression and cAMP-dependent progesterone release in granulosa and thecal cells.

	Attenuates the suppressive effects of activin A on STAR expression and progesterone production by increasing the expression of inhibin B. It suppresses FST and FSTL3 production in granulosa-lutein cells.
Cellular Location	Secreted.
Tissue Location	Expressed in ovarian granulosa cells. Present in oocytes of primary follicles (at protein level)

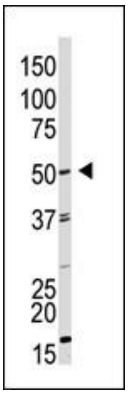
Background

GDF9 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.Growth factors synthesized by ovarian somatic cells directly affect oocyte growth and function. GDF9 is expressed in oocytes and is thought to be required for ovarian folliculogenesis.

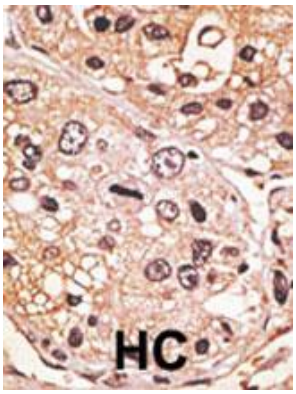
References

Liao, W.X., et al., J. Biol. Chem. 278(6):3713-3719 (2003).
Vitt, U.A., et al., Biol. Reprod. 67(2):473-480 (2002).
Aaltonen, J., et al., J. Clin. Endocrinol. Metab. 84(8):2744-2750 (1999).
Dong, J., et al., Nature 383(6600):531-535 (1996).
McGrath, S.A., et al., Mol. Endocrinol. 9(1):131-136 (1995).

Images

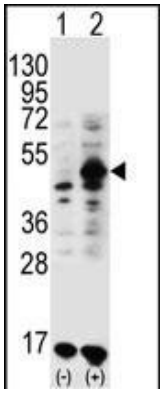


The anti-GDF9 N-term Pab (Cat. #AP2069a) is used in Western blot to detect GDF9 in HL60 cell lysate.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC 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 GDF9 (arrow) using rabbit polyclonal GDF9 Antibody (M45) (Cat. #AP2069a). 293 cell



lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the GDF9 gene.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.