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GDF11 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2061A

Product Information

Application	WB, IHC-P, E
Primary Accession	O95390
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	45091
Antigen Region	32-61

Additional Information

Gene ID	10220
Other Names	Growth/differentiation factor 11, GDF-11, Bone morphogenetic protein 11, BMP-11, GDF11, BMP11
Target/Specificity	This GDF11 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 32-61 amino acids from the N-terminal region of human GDF11.
Dilution	WB~~1:2000 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	GDF11 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GDF11
Synonyms	BMP11 {ECO:0000303|PubMed:10075854}
Function	Secreted signal that acts globally to regulate anterior/posterior axial patterning during development. May play critical roles in patterning both mesodermal and neural tissues (By similarity). It is required for proper

vertebral patterning and orofacial development (PubMed:31215115). Signals through activin receptors type-2, ACVR2A and ACVR2B, and activin receptors type-1, ACVR1B, ACVR1C and TGFBR1 leading to the phosphorylation of SMAD2 and SMAD3 (PubMed:28257634).

Cellular Location Secreted.

Tissue Location In the embryo, strong expression is seen in the palatal epithelia, including the medial edge epithelial and midline epithelial seam of the palatal shelves. Less pronounced expression is also seen throughout the palatal shelf and tongue mesenchyme

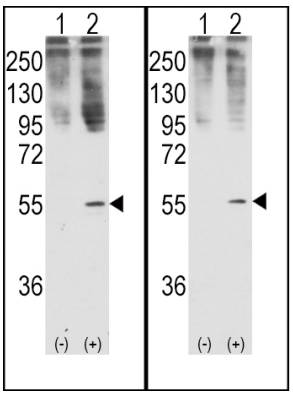
Background

GDF11 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 mice and Xenopus suggest that this protein is involved in mesodermal formation and neurogenesis during embryonic development.

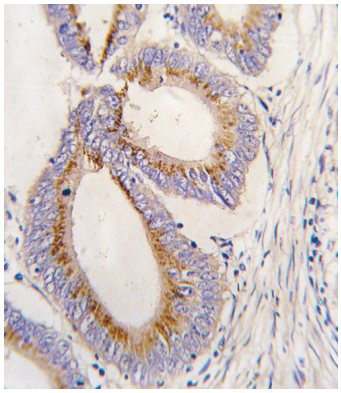
References

Lee, S.J., et al., Curr. Opin. Genet. Dev. 9(5):604-607 (1999).
McPherron, A.C., et al., Nat. Genet. 22(3):260-264 (1999).
Gamer, L.W., et al., Dev. Biol. 208(1):222-232 (1999).
Hillier, L.D., et al., Genome Res. 6(9):807-828 (1996).

Images



Western blot analysis of GDF11 (arrow) using rabbit polyclonal GDF11 Antibody (R47) (Cat.#AP2061a).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the GDF11 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human colon carcinoma tissue reacted with GDF11 antibody (N-term) (Cat.#AP2061a), 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.

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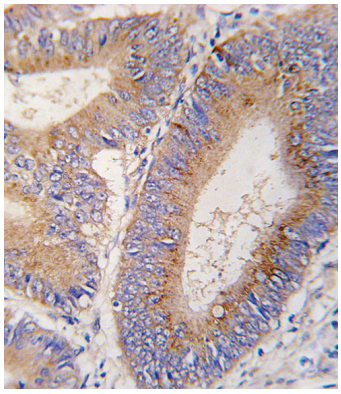

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