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BAPX1 Antibody

Catalog # ASC11288

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P78367
Other Accession	NP_001180, 4502365
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	34814
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	BAPX1 antibody can be used for detection of BAPX1 by Western blot at 1 and 2 □g/mL. Antibody can also be used for immunohistochemistry starting at 5 □g/mL. For immunofluorescence start at 20 □g/mL.

Additional Information

Gene ID	579
Other Names	Homeobox protein Nkx-3.2, Bagpipe homeobox protein homolog 1, Homeobox protein NK-3 homolog B, NKX3-2, BAPX1, NKX3B
Target/Specificity	NKX3-2; BAPX1 antibody is predicted not to cross-react with other NKX homeobox proteins.
Reconstitution & Storage	BAPX1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	BAPX1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NKX3-2
Synonyms	BAPX1, NKX3B
Function	Transcriptional repressor that acts as a negative regulator of chondrocyte maturation. PLays a role in distal stomach development; required for proper antral-pyloric morphogenesis and development of antral-type epithelium. In concert with GSC, defines the structural components of the middle ear; required for tympanic ring and gonium development and in the regulation of the width of the malleus (By similarity).

Cellular Location	Nucleus.
Tissue Location	Expressed at highest levels in cartilage, bone (osteosarcoma) and gut (small intestine and colon), whereas moderate expression is seen in trachea and brain. Expressed in visceral mesoderm and embryonic skeleton.

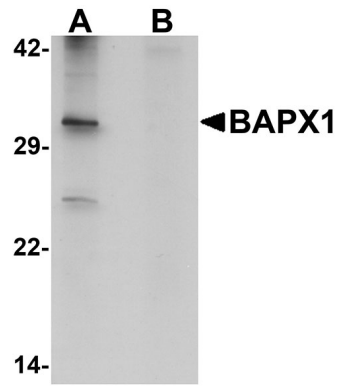
Background

BAPX1 Antibody: BAPX1 is the mammalian homolog of the Drosophila bagpipe homeobox gene and is expressed in the splanchnic mesoderm and embryonic skeleton. It is one of the earliest developmental markers for the sclerotome portion of the somite and the gut mesentery. BAPX1 is required for normal skeletal development; homozygous inactivating mutations in the BAPX1 gene result in spodylo-megaepiphyseal-metaphyseal dysplasia (SMMD). It has also been suggested to play a role in the proper development of the mammalian gut and is required for distal stomach development as part of a BARX1-dependent pathway.

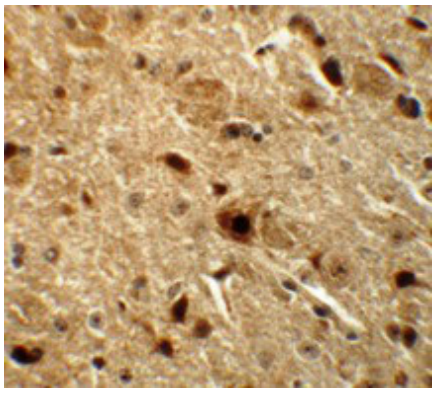
References

Tribioli C, Frasch M, and Lufkin T. Bapx1: an evolutionary conserved homologue of the Drosophila bagpipe homeobox gene is expressed in splanchnic mesoderm and the embryonic skeleton. Mech. Dev. 1997; 65:145-62.
Hellemans J, Simon M, Dheedene A, et al. Homozygous inactivating mutations in the NKX3-2 gene result in spodylo-megaepiphyseal-metaphyseal dysplasia. Am. J. Hum. Genet. 2009; 85:916-22.
Verzi MP, Stanfel MN, Moses KA, et al. Role of the homeodomain transcription factor Bapx1 in mouse distal stomach development. Gastroenterology 2009; 136:1701-10.

Images

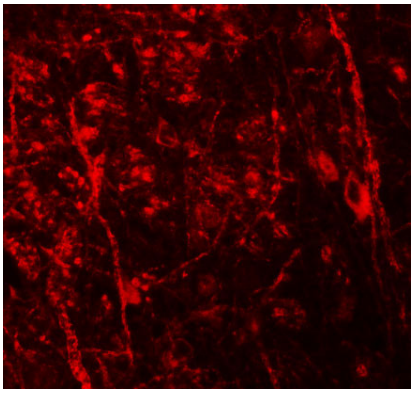


Western blot analysis of BAPX1 in human brain tissue lysate with BAPX1 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of BAPX1 in mouse brain tissue with BAPX1 antibody at 5 µg/mL.

Immunofluorescence of BAPX1 in mouse brain tissue with BAPX1 antibody at 20 µg/mL.



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