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Wnt10b Antibody

Catalog # ASC10699

Product Information

Application	WB, E, IHC-P
Primary Accession	O00744
Other Accession	NP_003385, 16936522
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	43000
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Wnt10b antibody can be used for detection of Wnt10b by Western blot at 2 - 4 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL.

Additional Information

Gene ID	7480
Other Names	Protein Wnt-10b, Protein Wnt-12, WNT10B, WNT12
Target/Specificity	WNT10B; Two isoforms of Wnt10b are known to exist; this antibody will only recognize the longer isoform. This Wnt10b antibody will not cross-react with Wnt10a.
Reconstitution & Storage	Wnt10b 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	Wnt10b Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	WNT10B
Synonyms	WNT12
Function	Member of the Wnt ligand gene family that encodes for secreted proteins, which activate the Wnt signaling cascade. Specifically activates canonical Wnt/beta-catenin signaling and thus triggers beta-catenin/LEF/TCF-mediated transcriptional programs. Involved in signaling networks controlling stemness, pluripotency and cell fate decisions. Acts in the immune system, mammary gland, adipose tissue, bone and skin.

Cellular Location	Secreted, extracellular space, extracellular matrix. Secreted
Tissue Location	Detected in most adult tissues. Highest levels were found in heart and skeletal muscle. Low levels are found in brain

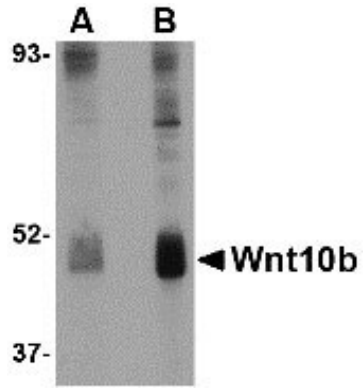
Background

Wnt10b Antibody: Wnt10b is a member of the Wnt family, a gene family that encodes secreted signaling proteins that play crucial roles in normal development such as regulation of cell fate and patterning during embryogenesis as well as neoplastic transformation. Wnt10b is found in the mouse mammary tumor virus insertion site where it is activated and causes mammary tumors. Elevated levels of Wnt10b have also been detected in human breast carcinomas. Wnt10b is known to be involved in adipogenesis, maintaining the preadipocyte in an undifferentiated state. More recently, Wnt10b has been shown to promote epithelial cell differentiation and hair shaft growth, demonstrating that Wnt10b has multiple roles in cell growth and differentiation.

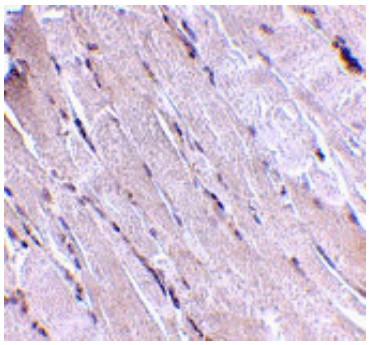
References

Lee FS, Lane TF, Kuo A, et al. Insertional mutagenesis identifies a member of the Wnt gene family as a candidate oncogene in the mammary epithelium of int-2/Fgf-3 transgenic mice. Proc. Natl. Acad. Sci. USA1995; 92:2268-72.
Nusse R and Varmus RE. Wnt genes. Cell1992; 69:1073-87.
Bui TD, Rankin J, Smith K, et al. A novel human Wnt gene, WNT10B, maps to 12q13 and is expressed in human breast carcinomas. Oncogene1997; 14:1249-53.
Bennett CN, Hodge CL, MacDougald OA, et al. Role of Wnt10b and C/EBPalpha in spontaneous adipogenesis of 243 cells. Biochem. Biophys. Res. Commun.2003; 302:12-16.

Images



Western blot analysis of Wnt10b in human skeletal muscle tissue lysate with Wnt10b antibody at (A) 2 and (B) 4 µg/mL.



Immunohistochemistry of Wnt10b in human skeletal muscle with Wnt10b antibody at 2.5 µg/mL.