Datasheet for ABIN103459

anti-LEFTY2 antibody

1 Image | 3 Publications

Go to Product page

Overview

Quantity:	100 µg
Target:	LEFTY2
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This LEFTY2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Purpose:	LEFTY A Antibody
Immunogen:	Immunogen: A BALB/c mouse was immunized with a recombinant form of 6X HIS tagged human LEFTY. Immunogen Type: Recombinant Protein
Clone:	7C5G1H6H10
Isotype:	IgG2a kappa
Cross-Reactivity (Details):	No reactivity occurs against 6X HIS tag.
Characteristics:	Synonyms: mouse anti-leftyA antibody, mouse anti-protein lefty 2 antibody, Left-right determination factor 2 antibody, Protein lefty-2 antibody, Left-right determination factor A antibody, Protein lefty-A antibody, Transforming growth factor beta-4 antibody, TGF-beta-4 antibody, Endometrial bleeding-associated factor antibody
Purification:	This protein A purified mouse monoclonal antibody reacts with a 30 kDa protein corresponding

Product Details

	to human LEFTY.
Sterility:	Sterile filtered

Target Details

Target:	LEFTY2
Alternative Name:	LEFTY2 (LEFTY2 Products)
Background:	Background: During vertebrate embryogenesis, a left-right axis is established. Secreted growth factors of the TGF-beta family, including gene products derived from nodal, lefty-1 and lefty-2, play crucial roles in establishing left-right asymmetries. TGF-beta (Transforming growth factor-beta) is a pleiotropic cytokine that regulates growth and differentiation of diverse types of cells. TGF-beta actions are directed by ligand-induced activation of TGF-beta receptors. Complexes formed move into the nucleus, where they act as components of a transcriptional complex. Lefty, a novel member of the TGF-beta superfamily, inhibits TGF-beta signaling. Lefty acts to inhibit phosphorylation of Smad2 following activation of the TGF-beta receptor. Lefty also inhibits events downstream from R-Smad phosphorylation. Lefty provides a repressed state of TGF-beta-responsive genes. The Lefty family is comprised of Lefty 1 and Lefty 2 in mouse, and Lefty A and Lefty B in humans. Members of the TGF-beta superfamily require processing for their activation. Cleavage is therefore an essential step for Lefty activation. Lefty is synthesized as a large inactive precursor (42 Kda) that must be endoproteolytically processed to release the bioactive polypeptide (28 kDa and 34 kDa forms). The 28 kDa form induces MAPK activity.
Gene ID:	7044
NCBI Accession:	NP_001165896
UniProt:	O00292

Application Details

Application Notes:	Application Note: This antibody has been tested by ELISA and western blotting. The antibody may be used for other applications, such as RIA, immunohistochemistry or immunoprecipitation, but specific reaction conditions have not been developed. Western Blot Dilution: 1:2,000 ELISA Dilution: 1:5,000 Other: User Optimized

Application Details

Restrictions:	For Research Use only

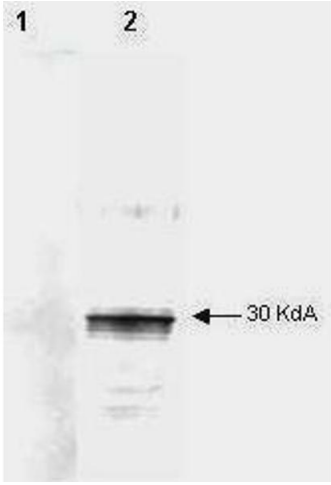
Handling

Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Publications

Product cited in:	Ulloa, Tabibzadeh: "Lefty inhibits receptor-regulated Smad phosphorylation induced by the activated transforming growth factor-beta receptor." in: **The Journal of biological chemistry**, Vol. 276, Issue 24, pp. 21397-404, (2001) (PubMed). Tsukui, Capdevila, Tamura, Ruiz-Lozano, Rodriguez-Esteban, Yonei-Tamura, Magallón, Chandraratna, Chien, Blumberg, Evans, Belmonte: "Multiple left-right asymmetry defects in Shh(-/-) mutant mice unveil a convergence of the shh and retinoic acid pathways in the control of Lefty-1." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 96, Issue 20, pp. 11376-81, (1999) (PubMed). Meno, Shimono, Saijoh, Yashiro, Mochida, Ohishi, Noji, Kondoh, Hamada: "lefty-1 is required for left-right determination as a regulator of lefty-2 and nodal." in: **Cell**, Vol. 94, Issue 3, pp. 287-97, (1998) (PubMed).

Images



Western Blotting

Image 1. Mab anti-Human LEFTY antibody (clone 7C5G1H6H10) is shown to detect by western blot partially purified recombinant 6X His tagged human LEFTY. Detection occurs after 1.0 ?g of protein is loaded in each lane. The blot was incubated with a 1:2,000 dilution of Mab anti-Human LEFTY at room temperature for 30 min followed by detection using800 labeled Goat-a-Mouse IgG [H&L] diluted 1:1,000. Lane 1 contains an unrelated 6X His tagged protein and shows that the antibody does not recognize the epitope tag. Lane 2 contains partially purified recombinant human LEFTY. The antibody may be used to detect endogenous human LEFTY.800 fluorescence image was captured using the Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

