10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-LEFTY A (MOUSE) Monoclonal Antibody
LEFTY A Antibody
Catalog # ASR4147

Specification

Anti-LEFTY A (MOUSE) Monoclonal Antibody - Product Information

Host	**Mouse**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Monoclonal**
Application	**WB, E, I, LCI**
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.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**A BALB/c mouse was immunized with a recombinant form of 6X HIS tagged human LEFTY.**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-LEFTY A (MOUSE) Monoclonal Antibody - Additional Information

Gene ID 7044

Other Names
7044

Purity
This protein A purified mouse monoclonal antibody reacts with a 30 kDa protein corresponding to human LEFTY. No reactivity occurs against 6X HIS tag. Significant sequence homology exists between the human and mouse forms of LEFTY. Cross reactivity is expected with mouse and rat forms of the protein. Reactivity with other sources has not been determined.

Storage Condition
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.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-LEFTY A (MOUSE) Monoclonal Antibody - Protein Information

Name LEFTY2

Synonyms EBAF, LEFTA, LEFTYA, TGFB4

Function
Required for left-right (L-R) asymmetry determination of organ systems in mammals. May play a role in endometrial bleeding.

Cellular Location
Secreted.

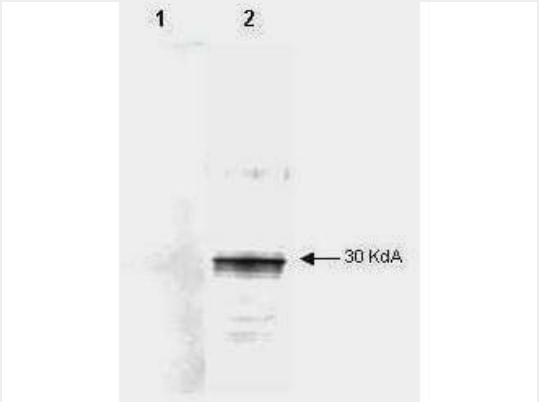
Tissue Location
Mesenchymal cells of the endometrial stroma.

Anti-LEFTY A (MOUSE) Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-LEFTY A (MOUSE) Monoclonal Antibody - Images



Mab anti-Human LEFTY antibody (clone 7C5G1H6H10) is shown to detect by western blot partially purified recombinant 6X His tagged human LEFTY. 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. Detection occurs after 1.0 µg 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 using IRDye™800 labeled Goat-a-Mouse IgG [H&L] (610-132-121) diluted 1:1,000. The antibody may be used to detect endogenous human LEFTY. IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

Anti-LEFTY A (MOUSE) Monoclonal Antibody - Background

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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 28kDa form induces MAPK activity.