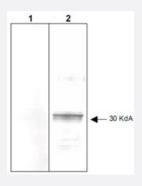


# LEFTY2 monoclonal antibody, clone 7C5G1H6H10

Catalog # MAB2032 Size 100 ug

# **Applications**



## Western Blot (Recombinant protein)

LEFTY2 monoclonal antibody, clone 7C5G1H6H10 (Cat # MAB2032) is shown to detect by western blot partially purified recombinant 6X His tagged human LEFTY2.

Detection occurs after 1.0 ug of protein is loaded in each lane.

The blot was incubated with a 1:2,000 dilution of LEFTY2 monoclonal antibody, clone 7C5G1H6H10 at room temperature for 30 min followed by detection using IRDye™800 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.

Specification	
Product Description	Mouse monoclonal antibody raised against recombinant LEFTY2.
Immunogen	Recombinant His fusion protein corresponding to human LEFTY2.
Host	Mouse
Reactivity	Human
Specificity	No reactivity occurs against 6X HIS tag.
Form	Liquid
Purification	This protein A purified mouse monoclonal antibody reacts with a 30 kDa protein corresponding to hu man LEFTY.
Isotype	lgG2a



### **Product Information**

Recommend Usage	ELISA (1:5000) Western Blot (1:2000) The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM KH <sub>2</sub> PO <sub>4</sub> , 150 mM NaCl, pH 7.2 (0.01% sodium azide).
Storage Instruction	Store vial at -20°C prior to opening. For long term storage, aliquot contents and freeze at -20°C or be low.  Aliquot to avoid repeated freezing and thawing.  Centrifuge product if not completely clear after standing at room temperature. This product is stable f or several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

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Enzyme-linked Immunoabsorbent Assay

Gene Info — LEFTY2	
Entrez GeneID	<u>7044</u>
Gene Name	LEFTY2
Gene Alias	EBAF, LEFTA, LEFTYA, MGC46222, TGFB4
Gene Description	left-right determination factor 2
Omim ID	601877
Gene Ontology	Hyperlink



### **Product Information**

#### **Gene Summary**

This gene encodes a member of the TGF-beta family of proteins. The encoded protein is secrete d and plays a role in left-right asymmetry determination of organ systems during development. The protein may also play a role in endometrial bleeding. Mutations in this gene have been associated with left-right axis malformations, particularly in the heart and lungs. Some types of infertility have been associated with dysregulated expression of this gene in the endometrium. Alternative processing of this protein can yield three different products. This gene is closely linked to both a related family member and a related pseudogene. [provided by RefSeq

#### **Other Designations**

OTTHUMP00000035570|endometrial bleeding associated factor|endometrial bleeding associate d factor (left-right determination, factor A; transforming growth factor beta superfamily)|transforming growth factor, beta-4 (endometrial bleeding-associated factor;

## **Publication Reference**

 Lefty inhibits receptor-regulated Smad phosphorylation induced by the activated transforming growth factorbeta receptor.

Ulloa L, Tabibzadeh S.

The Journal of Biological Chemistry 2001 Jun; 276(24):21397.

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.

Tsukui T, Capdevila J, Tamura K, Ruiz-Lozano P, Rodriguez-Esteban C, Yonei-Tamura S, Magallon J, Chandraratna RA, Chien K, Blumberg B, Evans RM, Belmonte JC.

PNAS 1999 Sep; 96(20):11376.

lefty-1 is required for left-right determination as a regulator of lefty-2 and nodal.

Meno C, Shimono A, Saijoh Y, Yashiro K, Mochida K, Ohishi S, Noji S, Kondoh H, Hamada H. Cell 1998 Aug; 94(3):287.

## **Pathway**

TGF-beta signaling pathway

#### Disease

- Cleft Lip
- Cleft Palate



- Genetic Predisposition to Disease
- Obesity
- Ovarian Failure
- Polycystic Ovary Syndrome
- Puberty
- Thrombophilia
- Tobacco Use Disorder