

## Recombinant Human LEFTY2 Protein (His Tag)

**Catalog No.** PKSH032686

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

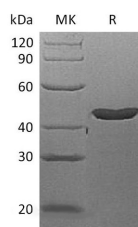
### Description

<b>Synonyms</b>	Left-right determination factor 2;Endometrial bleeding-associated factor;Left-right determination factor A;Protein lefty-2;Protein lefty-A;Transforming growth factor beta-4;TGF-beta-4;LEFTY2;EBAF;LEFTA;LEFTYA;TGFB4
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Phe78-Pro366
<b>Accession</b>	O00292
<b>Calculated Molecular Weight</b>	39.1 kDa
<b>Observed molecular weight</b>	45-50 kDa
<b>Tag</b>	N-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20mM Histidine-HCl 4% Sucrose 4% Mannitol 0.1% Tween 80 pH6.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 90 % as determined by reducing SDS-PAGE.

### For Research Use Only

## Background

Left-right determination factor 2 (LEFTY2) is a secreted protein which belongs to the TGF-beta family. Lefty was first identified in a screen for undifferentiated cell-specific cDNAs from the P19 mouse embryonal carcinoma cells. Its mRNA expression on the left side of the developing embryo earned the name "Lefty". The human orthologue was initially identified as Ebaf, Endometrial bleeding associated factor. Lefty contains the six cysteine residues that are conserved among TGF- $\beta$  related proteins and that are necessary to form the cysteine knot structure. Its function in patterning left-right asymmetry of the developing organ systems such as the heart and lung is consistent in all vertebrate species examined. Lefty acts as an antagonist to Nodal signaling, potentially by competing for binding to a common receptor. It may play a role in endometrial bleeding.

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