# Product Name: Recombinant Human Lefty-A (N-6His)

Catalog #: PHH1071



### **Summary**

Name Left-right Determination Factor 2

**Purity** Greater than 95% as determined by reducing SDS-PAGE

**Endotoxin level** <1 EU/μg as determined by LAL test.

Construction Recombinant Human Left-right Determination Factor 2 is produced by our

Mammalian expression system and the target gene encoding Phe78-Pro366

is expressed with a 6His tag at the N-terminus.

Accession # 000292

**Host** Human Cells

**Species** Human

Predicted Molecular Mass 39.1 KDa

Formulation Lyophilized from a 0.2 µm filtered solution of 20 mM His-HCl, 10% Trehalose, 4%

Mannitol, 100 mM NaCl, 0.1% Tween 80, pH5.5.

Shipping The product is shipped at ambient temperature. Upon receipt, store it

immediately at the temperature listed below.

Stability&Storage Store at  $\leq$ -70°C, stable for 6 months after receipt. Store at  $\leq$ -70°C, stable for 3

months under sterile conditions after opening. Please minimize freeze-thaw

cycles.

**Reconstitution** Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is

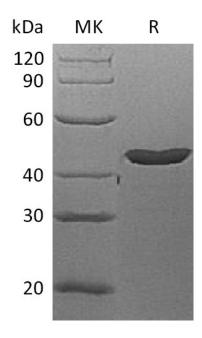
not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles. Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

## **SDS-PAGE** image

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### **Alternative Names**

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

### **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-β related proteins and that are necessary to form the cysteineknot 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.

#### Note

For Research Use Only, Not for Diagnostic Use.