

## Product datasheet for **DM3585P**

### Lefty1 Rat Monoclonal Antibody [Clone ID: 8B65]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	8B65
Applications:	WB
Recommended Dilution:	Western Blot: 1/500 - 1/1000.
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2
Clonality:	Monoclonal
Immunogen:	Recombinant protein of Lefty-1
Specificity:	This antibody detects Lefty-1.
Formulation:	State: Purified State: Lyophilized purified Ig
Reconstitution Method:	Restore with 200µl sterile PBS and the final concentration is 500µg/ml.
Purification:	Protein A/G affinity chromatography
Conjugation:	Unconjugated
Storage:	Prior to reconstitution store at -70°C. Following reconstitution store the antibody (in aliquots) at -20°C for 6 month. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	left right determination factor 1
Database Link:	<a href="#">Entrez Gene 13590 Mouse Q64280</a>



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**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 (41 Kda) that must be endoproteolytically processed to release the bioactive polypeptide (28 kDa and 34 kDa forms). The 28kDa form induces MAPK activity.

**Synonyms:**

LEFTY1, LEFTB, LEFTYB, Left-right determination factor 1, Protein lefty-1, Left-right determination factor B, Protein lefty-B