

## Product datasheet for MR205670

### Lefty2 (NM\_177099) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lefty2 (NM_177099) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lefty2
Synonyms:	6030463A22Rik; Eba; EbaF; Left; Lefta; Leftb; lefty-2; lefty-B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205670 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGTCCCTGTGGCTTTGCTGGGCACTCTGGGTACTGCCCTGGCTGGCCCTGGGGCAGCGATGACCG  
AGGAACAGGTCTGAGCAGTCTACTGCAGCAGCTGCAGCTCAGCCAGGCCCCACCCTGGACAGCGCGGA  
TGTGGAGGAGATGGCCATCCCTACCCACGTGAGGTCCCAGTATGTGGCCCTGCTGCAGGGAAGTCACGCT  
GACCGCTCCCAGGCAAGAGGTTTCAGCCAGAATTTTCGAGAGGTGGCAGGAGGTTCTGATGTCAGAGA  
CCTCCACTCACCTGCTAGTGTTCGGAATGGAGCAGCGGCTGCCGCCTAACAGCGAGCTGGTGCAGGCTGT  
GCTGCGGCTGTTCCAGGAGCCTGTGCCAGAACAGCTCTCCGGAGGTTTGAGAGGCTGTCCCCACACAGT  
GCCCGGGCTCGGGTACCATTGAATGGCTGAGAGTCCGTGAGGATGGCTCCAATCGCACTGCCCTCATCG  
ACTTAGGCTCGTGTCCATCCACGAGAGCGGCTGGAAGGCCTTCGACGTGACCGAGGCCGTGAATTCTG  
GCAGCAGCTGAGCCGGCCGAGGCAGCCGCTGCTGCTCCAGGTGTCGGTGCAGAGGGAGCATCTGGGGCCG  
GGGACCTGGAGCGCACACAAGTTGGTCCGTTTCGCGGCGCAGGGGACGCCGGACGGCAAGGGGCAGGGCG  
AGCCACAGCTGGAGCTGCACACGCTGGACCTCAAGGACTACGGAGCTCAAGGCAATTGTGACCCCGAGGT  
ACCAGTGAAGGCACCCGATGCTGTGCCAGGAGATGTACCTGGACCTGCAGGGGATGAAGTGGGCC  
GAGAATGGATCCTAGAACCAGGTTCTGACGTATGAATGTGTGGCAGCTGCCTGCAGCTACCG  
AGTCCCTGACCATCGGGTGGCCATTTCTGGGGCTCGGCAGTGTGTTGCCTCAGAGATGACCTCCTTGCC  
CATGATTGTCAGTGTGAAGGAGGAGGCAGGACCAGGCCCTCAAGTGGTCAGCCTGCCAACATGAGGGTG  
CAGACCTGTAGCTGCGCCTCAGATGGGGCGCTCATACCCAGGGGATAGATCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR205670 protein sequence  
 Red=Cloning site Green=Tags(s)

MKSLWLCWALWVPLAGPGAAMTEEQVLSLLQQLLSQAPTLDSDADVEEMAIPTHVRSQYVALLQGSHA  
 DRSRGKRF SQNFREVAGRFLMSETSTHLLVFGMEQRLPPNSELVQAVLRLFQEPVPRALRRFERLSPHS  
 ARARVTIEWLRVREDGSRNTALIDSRLVSIHESGWKAFDVTEAVNFWQQLSRPRQPLLLQVSVQREHLGP  
 GTWSAHKLVRF AAQGTPDGKGQGEPLQLHTLDLKDYGAGQNCDEVPVTEGTRCCRQEMYLDLQGMKWA  
 ENWILEPPGFLTYECVGSCLQLPESLTIWPFLLGPRQCVAEMTSLPMIVSVKEGGRTRPQVVSPLNMRV  
 QTCSCASD GALIPRGIDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_177099

**ORF Size:** 1107 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_177099.4](#)

**RefSeq Size:** 2534 bp

**RefSeq ORF:** 1107 bp

**Locus ID:** 320202

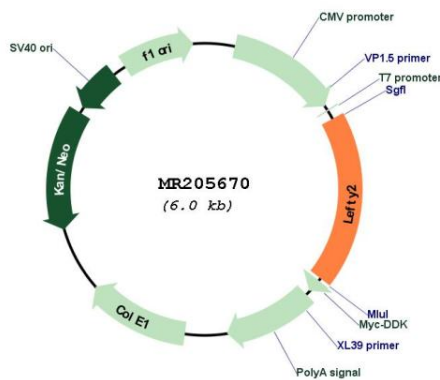
**UniProt ID:** [P57785](#)

**Cytogenetics:** 1 H4

**MW:** 41.2 kDa

**Gene Summary:** This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate the mature protein, which plays a role in left-right asymmetry determination of organ systems during development. This protein is also important in self-renewal and differentiation of mouse embryonic stem cells. Mice lacking a functional copy of this gene exhibit defects in axial and left-right patterning. [provided by RefSeq, Aug 2016]

**Product images:**



Circular map for MR205670