

Product datasheet for **RC206459**

Lefty (LEFTY1) (NM_020997) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lefty (LEFTY1) (NM_020997) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lefty
Synonyms:	LEFTB; LEFTYB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206459 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGCCCTGTGGCTCTGCTGGGCACTCTGGGTGTTGCCCTGGCCAGCCCCGGGGCCGCCCTGACCG
GGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAAAGAGGTGCCACCCTGGACAGGGCCGA
CATGGAGGAGCTGGTTCATCCCCACCCAGTGGGGCCAGTACGTGGCCCTGCTGCAGCGCACCCACGGG
GACCGCTCCCGCGAAAGAGGTTCCAGCCAGAGCTCCGAGAGGTGGCCGGCAGGTTCTGGCCTGGAGG
CCAGCACACACCTGCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGT
GCTGCGGCTCTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCCGCGCAGC
GCCCGGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAACCGCACCTCCCTCATCG
ACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTTCGACGTGACCGAGGCCGTGAACCTCTG
GCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCTGCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCC
CTGGCGTCCGGCGCCACAAGCTGGTCCGCTTTCCTCGCAGGGGGGCCAGCCGGGCTTGGGGAGCCCC
AGCTGGAGCTGCACACCCTGGACCTTGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACC
GACCGAGGGCACCCGCTGCTGCCCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGCCGAGA
TGGGTGCTGGAGCCCCGGGCTTCTGGGCTTATGAGTGTGTGGCACCTGCCGGCAGCCCCGGAGGCC
TGGCCTTCAAGTGGCCGTTTCTGGGGCCTCGACAGTGCATCGCCTCGGAGACTGACTCGCTGCCCATGAT
CGTCAGCATCAAGGAGGGAGGCAGGACCAGGCCCCAGGTGGTCAGCCTGCCAACATGAGGGTGCAGAAG
TGCAGCTGTCCTCGGATGGTGCCTCGTGCCAAGGAGGCTCCAGCCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC206459 protein sequence
Red=Cloning site Green=Tags(s)

MQPLWLCWALWVPLASPGAALTGEQLLGSLLRQLQLKEVPTLDRADMEELVIPTHVRAQYVALLQRSHG
 DRSRGKRFSSQSFREVAGRFLALEASTHLLVFGMEQRLPPNSELVQAVLRLFQEPVPKAALHRHGRLSPRS
 ARARVTVEWLRVRDDGNSRNTSLIDSRLVSVHESGWKAFDVTEAVNFWQQLSRPRQPLLLQVSVQREHLGP
 LASGAHKLVRFASQGAPAGLGEPLQLHTLDDLGDYGAQGDCEAPMTEGTRCCRQEMYIDLQGMKWAEN
 WVLEPPGFLAYECVGTCTCRQPPEALAFKWPFLGPRQCIASETDSLPMIVSIKEGGTRPQVVSLPNMRVQK
 CSCASDGALVPRRLQP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6756_a06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_020997

ORF Size: 1098 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_020997.4](#)

RefSeq Size: 1644 bp

RefSeq ORF: 1101 bp

Locus ID: 10637

UniProt ID: [O75610](#)

Cytogenetics: 1q42.12

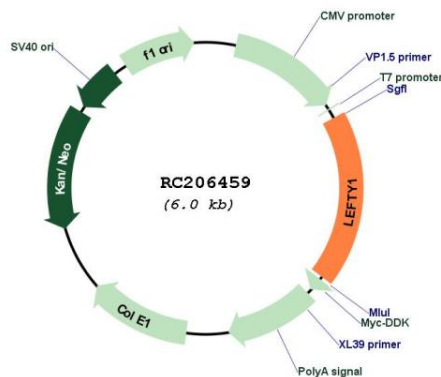
Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: TGF-beta signaling pathway

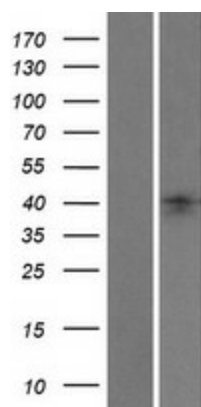
MW: 40.9 kDa

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 gene is closely linked to both a related family member and a related pseudogene. [provided by RefSeq, Aug 2016]

Product images:



Circular map for RC206459



Western blot validation of overexpression lysate (Cat# [LY412114]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206459 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).