

Product datasheet for RC207799

LEFTY2 (NM_003240) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LEFTY2 (NM_003240) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LEFTY2
Synonyms:	EBAF; LEFTA; LEFTYA; TGFβ4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207799 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGCCCTGTGGCTCTGCTGGGCACTCTGGGTGCTGCCCTGGCTGGCCCCGGGGCGGCCCTGACCG
AGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAGCGAGGTGCCCGTACTGGACAGGGCCGA
CATGGAGAAGCTGGTTCATCCCCGCCACGTGAGGGCCAGTATGTAGTCTGCTGCGGCGCACCCACGGG
GACCGCTCCCGCGAAAGAGGTTTCAGCCAGAGCTCCGAGAGGTGGCCGGCAGGTTCTGGCGTCGGAGG
CCAGCACACACCTGCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTCAGGCCGT
GCTGCGGCTCTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCCGCGCAGC
GCCAGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAACCGCACCTCCCTCATCG
ACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTTCGACGTGACCGAGGCCGTGAACCTCTG
GCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCTGCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCC
CTGGCGTCCGGCGCCACAAGCTGGTCCGCTTTCCTCGCAGGGGGCGCCAGCCGGGCTTGGGGAGCCCC
AGCTGGAGCTGCACACCTGGACCTCAGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACAAT
GACCGAGGGCACCCGCTGCTGCCCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGCCAAGAAC
TGGTGCTGGAGCCCCGGGCTTCTGGCTTACGAGTGTGTGGCACCTGCCAGCACCCCGGAGGCC
TGGCCTTCAATTGGCATTCTGGGGCCGACAGTGTATCGCCTCGGAGACTGCCTCGCTGCCCATGAT
CGTCAGCATCAAGGAGGGAGGCAGGACAGGCCCCAGGTGGTCAGCCTGCCAACATGAGGGTGCAGAAG
TGCAGCTGTCCTCGGATGGGGCGCTCGTGCCAAGGAGGCTCCAGCCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC207799 protein sequence
Red=Cloning site Green=Tags(s)

MWPLWLCWALWVPLAGPGAAL TEEQLLGSLRLRQLQLSEVPVLDRADMEKLVIPAHVRAQYVLLRRSHG
 DRSRGKRF SQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRFLFQEPVPKAALHRHGRLSPRS
 AQARVTVEWLRVRRDDGSNRTSLIDSRLVSVHESGWKAFDVTEAVNFWQQLSRPRQPLLLQVSVQREHLGP
 LASGAHKLVRFASQGAPAGLGEPLQLHTLDRDYGAQGDCEAPMTEGTRCCRQEMYIDLQGMKWAKN
 WVLEPPGFLAYECVGTCCQPPEALAFNWPFLGPRQCIASETASLPMIVSIKEGGTRPQVVSLPNMRVQK
 CSCASDGALVPRRLQP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6215_f12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_003240

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_003240.5](#)

RefSeq Size: 2187 bp

RefSeq ORF: 1101 bp

Locus ID: 7044

UniProt ID: [O00292](#)

Cytogenetics: 1q42.12

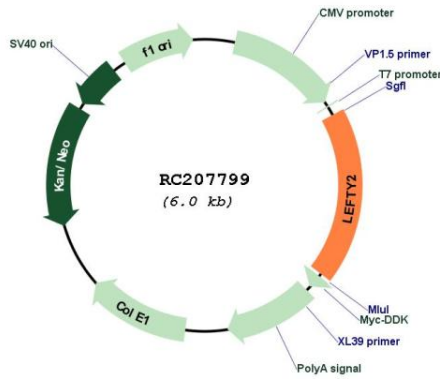
Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: TGF-beta signaling pathway

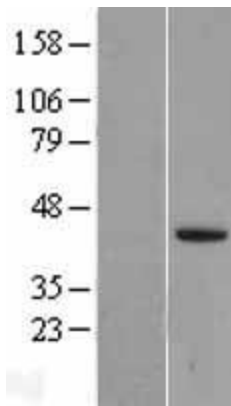
MW: 40.9 kDa

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. The protein may also play a role in endometrial bleeding. Mutations in this gene have been associated with left-right axis malformations, particularly in the heart and lungs. Some types of infertility have been associated with dysregulated expression of this gene in the endometrium. This gene is closely linked to both a related family member and a related pseudogene. This gene encodes multiple isoforms that may undergo similar proteolytic processing. [provided by RefSeq, Aug 2016]

Product images:



Circular map for RC207799



Western blot validation of overexpression lysate (Cat# [LY418816]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207799 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).