

Product datasheet for **RG207799**

LEFTY2 (NM_003240) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LEFTY2 (NM_003240) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LEFTY2
Synonyms:	EBAF; LEFTA; LEFTYA; TGFβ4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG207799 representing NM_003240 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGCCCTGTGGCTCTGCTGGGCACTCTGGGTGCTGCCCTGGCTGGCCCCGGGGCGGCCCTGACCG
AGGAGCAGCTCCTGGGCAGCCTGCTGCGGCAGCTGCAGCTCAGCGAGGTGCCCGTACTGGACAGGGCCGA
CATGGAGAAGCTGGTCATCCCCGCCACGTGAGGGCCAGTATGTAGTCTGCTGCGGCGCAGCCACGGG
GACCGCTCCCGCGAAAGAGGTTCCAGCCAGAGCTCCGAGAGGTGGCCGGCAGGTTCTGGCGTCGGAGG
CCAGCACACACCTGCTGGTGTTCGGCATGGAGCAGCGGCTGCCGCCAACAGCGAGCTGGTGCAGGCCGT
GCTGCGGCTCTTCCAGGAGCCGGTCCCCAAGGCCGCGCTGCACAGGCACGGGCGGCTGTCCCCGCGCAGC
GCCAGGCCCGGGTGACCGTCGAGTGGCTGCGCGTCCGCGACGACGGCTCCAACCGCACCTCCCTCATCG
ACTCCAGGCTGGTGTCCGTCCACGAGAGCGGCTGGAAGGCCTTCGACGTGACCGAGGCCGTGAACCTCTG
GCAGCAGCTGAGCCGGCCCCGGCAGCCGCTGCTGCTACAGGTGTCGGTGCAGAGGGAGCATCTGGGCCCCG
CTGGCGTCCGGCGCCACAAGCTGGTCCGCTTTCGCTCGAGGGGGCGCCAGCCGGGCTTGGGGAGCCCC
AGCTGGAGCTGCACACCCTGGACCTCAGGGACTATGGAGCTCAGGGCGACTGTGACCCTGAAGCACC
GACCGAGGGCACCCTGCTGCCGCCAGGAGATGTACATTGACCTGCAGGGGATGAAGTGGGCCAAGAAC
TGGGTGCTGGAGCCCCGGGCTTCTGGCTTACGAGTGTGTGGCACCTGCCAGCAGCCCCGGAGGCC
TGGCCTTCAATTGGCATTCTGGGGCCGACAGTGTATCGCCTCGGAGACTGCCTCGCTGCCCATGAT
CGTCAGCATCAAGGAGGGAGGCAGGACCAGGCCAGGTGGTCAGCCTGCCAACATGAGGGTGCAGAAG
TGCAGCTGTCCTCGGATGGGGCGCTCGTGCCAAGGAGGCTCCAGCCA

ACGGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG207799 representing NM_003240
 Red=Cloning site Green=Tags(s)

MWPLWLCWALWVPLAGPGAAL TEEQLLGSLLRQLQLSEVPVLDRADMEKLVIPAHVRAQYVVLRRSHG
 DRSRGKRFSQSFREVAGRFLASEASTHLLVFGMEQRLPPNSELVQAVLRLFQEPVPKAALHRHGRLSPRS
 AQARVTVEWLRVRDDGSNRTSLIDSRLVSVHESGWKAFDVTEAVNFWQQLSRPRQPLLLQVSVQREHLGP
 LASGAHKLVRFASQGAPAGLGEPLQLHTLDLDRDYGAQGDCEAPMTEGTRCCRQEMYIDLQGMKWAKN
 WVLEPPGFLAYEYCVGTCQQPPEALAFNWPFLGPRQCIASETASLPMIVSIKEGGTRPQVVSLPNMRVQK
 CSCASDGALVPRRLQP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003240

ORF Size: 1098 bp

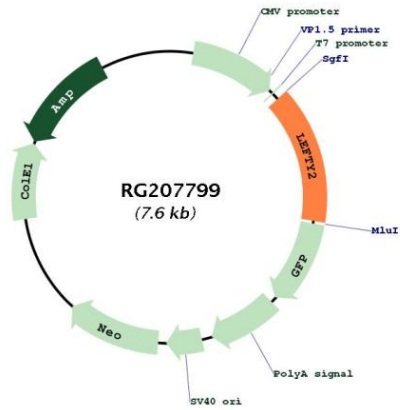
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<ol style="list-style-type: none">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:	2102 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
Gene Summary:	<p>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]</p>

Product images:



Circular map for RG207799