

## Product datasheet for **RR210089**

### Ltbp2 (NM\_021586) Rat Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Ltbp2 (NM\_021586) Rat Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: Ltbp2  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 Cell Selection: Neomycin  
 ORF Nucleotide Sequence: >RR210089 representing NM\_021586  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGAGAGCACCTCCCTGCGAGGTCTCCGGTGCCACAGCTCTGCAGCCACTCTGGCGCCATGAGGGCGC  
 CGACCACCGTCCGCTGCTCCGGACGCATCCAAAGGGCGCGTTGGAGGGGCTTCTGCCACTTGTCTCTGGC  
 TCTCTTGATGGGACAAGTCATGCCCAAAGGGATTCCGTGGGAGATACGAACCAGTAGCCGGGATGCC  
 AATCGGTTGTGGCGCCCGTGGGCAACCACCCCGCAGCGGCTGCAGCCAAGGTGTACAGTCTGTTCCGAG  
 AGCCCGACGCGCCGGTCCCGGGTGTGCGCCTCTGAGTGAATCAGCCGGGCCAGGGGATCCCTGGGAG  
 GCTCGCAGAGGCCGAGGCCAGGAGACCGTCCCAGGCCAGCAGCTGCGTCGAGTCCAGTACCTGTCCAG  
 ACTCGGAGAAGCAATCCCGAGGCCAGCAGCCACCAGCAGCCCGGACCGCACATTCCGTCGTGCGCCTGG  
 CGACCCCTCAGCGACCCGCGGCTGCACGCCGAGGGCGGCTCACCGGAGAAATGTCTGCGGGGACAGTG  
 CTGCCCTGGATGGACGACATCGAACAGCACCAACCACTGTATCAAACCTGTGTGTCAGCCTCCCTGTGAG  
 AACCGGGGCTCCTGCAGCCGGCCCGCAGCTCTGCATCTGCCGTTCTGGCTCCGTGGGGCACGCTGCGAGG  
 AGGTCATCCCTGAGGAGGAGTTTGACCCTCAGAATGCCAGGCCTGTGCCAGACGCTCAGTGGAGGGAGC  
 ACCTGGCCCTCACAGGAGCAGCGAGGCCAGAGGAAGTCTAGTGACCAGAAATACAGCCGCTGCTACCACCA  
 CTACCACCACCTCCATCTAGGACCTCAGCCAGACCCGTCCTCCCTGCAGCAGCATGCAGGACTGTCCAGAA  
 CAGTTCGTCGTTATCCGGCCACTGGTACCAATGGCCAACCTGATGTCCAACGCTCTGCCTTCAGGACCAGG  
 ACCTGAGCTGAGAGACAGCAGCCAACAGGCAGCACACATGAACCATCTCTCACACCCCTGGGGGCTGAAC  
 CTCACCGAGAAAATCAAGAAGATTAAGGTGCTTCACTCCCACCATCTGCAAGCAGACCTGTGCCCGGG  
 GCCGCTGTGCCAACACGTTGTGAGAAGGGTGACACCACCACCTGTACAGTCAGGGCGGCCATGGGCATGA  
 CCCCAGTCTGGCTTCCGTATCTATTTCTGCCAAATCCCTGCCTGAATGGAGGCCGCTGCATTGGCCGG  
 GACGAGTGTGGTGTCCAGCCAACCTACAGGGAAGTTCTGCCATCTGCCTGTCCACAGCCAGCAGAGGG  
 AGCCTCCAGGACGAGGCTCCAGCACAGAGCCCTGCTGGAAGGGCATTGAAGCAATCCACCTTACGCT  
 GCCTCTCTCCAACCAGCTGGCCTCTGTGAACCCCTCGCTGGTGAAGGTACAAATGCAGCACCCGCTGAG  
 GCCTCCGTGCAGATCCACCAGGTGGCCCGGGTCCGGGGTGGAGTGGACCTGTGCCAGAGGACAACAGTG  
 TGGAGACCAGAGCCTCTCATCGCCCCATGGCAGCTCAGGCCACAGCCACTGGGCCAGCAACAGCATACC  
 CGCTCGGGCTGGAGAGGCCCTCGGCCACCACCAGTGCCGTCAGGCATTATGGACTTCTGGGCCAGTGT



[View online »](#)

TACCTGAGCACGGTGAATGGACAGTGTGCTAACCCCTAGGGGAGCTGACTTCTCAGGAAGACTGCTGTG  
GCAGTGTGGGGACTTCTTGGGGGTGACTTCTGTGCCCATGCCACCCAGACCAGCTTTCCCCGTGAT  
TGAAAACGGCCAGCTGGAGTGTCCCAAGGGTATAAGAGACTAAACCTCAGCCATTGCCAAGACATCAAT  
GAGTGCCTGACCTGGGCTGTGCAAGGATTAGAGTGTGTGAACACCAGGGGCAGCTACCTGTGCACCT  
GCAGGCCCGGCTCATGCTGGATCCATCAAGGAGCCGCTGTGTATCGGACAAGGCTGTCTCCATGAAACA  
GGGACTCTGTTACCGGTCAATGGTGTCTGGCACCTGCACCCTGCCTTTGGTACAACGGATACCAAGCAG  
ATATGCTGTTGCAGCCGTGTGGCAAGCTGGGCAGCAAATGTGAACACTGCCCCCTGCCTGGCACAG  
AAGCCTTCAGGGAGATCTGCCCTGTGGCCATGGCTACGCCTACTCAAGCTCAGACATCCGCTGTCTAT  
GAGGAAAGCTGAGGAAGAGAACTGGCTAGCCCCGTAAGGGAACAGAGACAGCAGAGCAGTGGACCCCCA  
CCTGGGCAGCAGAAAGGCAGCCACTCCGGGCAGCCACTGCCACCTGGATTGAGGCTGAGACCCTCCCTG  
ACAAAGGTGACTCTCGGCTATTAGATTACAACCAGTGTCTCCACCTACCTGCCCGGGTACCAGGGGA  
TGCCACTGGAAGACCAACGCCATCATTGCCTGGACAGGGCATTCCAGAGGGTCCAGCAGAAGAGCAGGTG  
ATCCCTCCAGTGTCTCTGGTACGCACGGTCCCCAGGCTTTGATCCATGTTTCGCTGGAGCCTCCA  
ACATCTGTGGCCTGGGACCTGTGTGAAGCTCCCAAATGGATACAGATGTGTCTGCAGCCCTGGTTACCA  
GCTACACCCAGCCAGGACTACTGTACTGATGACAACGAGTGTCTGAGGAACCCCTGTGAAGGAAGAGGG  
CGCTGTGTCAACAGTGTGGGCTCCTACTCCTGCCTCTGCTACCCAGGCTACACACTAGCCACCCTAGGAG  
ACACACAGGAGTGCCAAGATGTGGATGAGTGTGAGCAGCCGGGGTGTGCAGCGGTGGACGATGCAGCAA  
CACTGAGGGCTCGTACCACTGCGAGTGTGATCAGGGCTACGTCATGGTCAGAAGAGGACACTGCCAAGAT  
ATCAACGAATGCCGTACCCTGGTACCTGCCCTGATGGGAGATGCGTCAACTCCCCTGGCTCCTACACTT  
GTCTGGCTGTGAGGAGGGCTACATAGGGCAGAGCGGAACTGTGTAGATATGAATGAGTGTCTGACCCC  
CGGGATATGTGCCATGGAAGGTGCATCAACATGGAAGGCTCCTTTAGATGCTCTGTGAGCCAGGCTAT  
GAGCTACCCAGACAAGAAGGGCTGCCGAGATGTGGACGAGTGTGCCAGCCGAGCCTATGCCCCACCG  
GCCTCTGCCTCAACACGGAGGGCTCCTTCACTGCTCAGCCTGTGAGAGTGGGACTGGTGAACGAGG  
TGGCACTGCCTGTGAAGACCTGGATGAATGTGCCTTCCCCGAGTCTGCCCCACAGGCGTGTGACCAAC  
ACTGTGGGCTCCTTCTCCTGCAAGGACTGCGACAGGGGCTTCCGGCCAGCCCCCTGGGCAACAGTGTG  
AAGATGTGGATGAGTGTGAAGTCCCAGAACAGCTGCCTGGGAGGCGAGTGAAGAACACAGATGGTTC  
CTACCAGTGCCTCTGTCCCAGGGCTTCCAGCTGGCCAATGGCACCGTGTGTGAGGATGTGGACGAATGT  
GTTGGGAAGAACAACACTGCGCTCCTCATGGCAATGCCTCAACAGCCCGGGTCTTCTTCTGTCTGTG  
CACCCGGCTTTGCTAGTGTGAGGGGGCACCAGATGCCAGGATGTTGATGAATGTGAACACAGAGCC  
GTGTCTGGGAGGACTGTGTCAACACCGAGGGCTCCTTCAACTGTCTGTGTGAGACTGGCTTCCAGCCC  
GCCCCAGACAGTGGAGAGTGTGTGGACATAGATGAATGTGCAAAATGATACTGTGTGTGGAAACCATGGCT  
TCTGTGACAATACGGATGGCTCCTTCCGCTGCCTGTGTGACCAGGGCTTCCAGACCTCACCTCAGGCTG  
GGAGTGTGTTGATGTGAACGAGTGTGAGCTCATGCTGGCAGTGTGTGGGGATGCACTCTGCGAGAACGTG  
GAAGGCTCCTTCTGTGCCTTTGTGCCAGTGCCTTGAGGAGTATGATGCAGAAGAAGGACACTGCCGTC  
CTCGGGTGGCTGGAGCTCAGAGAATCCCAGAGGTCCCAACAGAGGAGCAGGCTGCAGGCCTTACCGCAT  
GGAGTGTATGCTGAACACAATGGTGGTCTCCATGCTCTCAAATCTTGGGCCAGAACTCCACACAGGCT  
GAGTGTGCTCGACCCAGGGTCCAGATGGGGGAAACCTGTGATCCCTGCCATCTGAGGACTCAGTTG  
AATTCAGTGTGCTGTGCCAGTGGTCAAGGTTACATCCAGTGGAAAGGGCCTGGACATTTGGACAAGC  
CATGTATACAGATGCCGACGAGTGCATACTGTTTGGCCTGCTCTCTGCCAGAATGGCCGATGCCTCAAC  
ACAGTGCCTGGCTACATTTGCCTGTGCAACCCTGGCTACCACTATGATGCCGTGAGCAGGAAGTCCAGG  
ATCACAACGAATGCCAGGACTTGGCCTGTGAGAACGGCGAGTGTGTGAACACAGAAGGCTCCTTCCACTG  
CTTCTGCACTCCCCCTCATCCTAGACCTCAGCGGACAGCGCTGTGTGAACAGTACCAGCAGCTCAGAG  
GACTTCCCTGACCATGACATCCACATGGACATCTGCTGGAAAAAGTCACCAATGACGTGTGCAGCCAGC  
CCTTGGTGGGCACCATACTACCTATACAGAGTGTGCTGCCAAGACGGGGAGGCTGGAGCCAGCAGTG  
TGCTCTGTGCCCCCAGGAGCTCTGAGGTCTATGCTCAGCTGTGCAATGTGGCTCGGATTGAGGCAGAG  
AGGGAAGCAGGGATCCACTTCCGGCCAGGATATGAGTATGGCCCTGGCCAGATGATCTACCTGAAACCC  
TCTACGGCCAGATGGAGCCCTTCTATAACTACCTGGGCCCTGAGGACTGTTCTGAGCCTCCCTT  
CTCCAACACAGCCAGTCAATTTGGGAGACAACACCCATCCTTGAGCCTCCTCTGAGCCCTCTGAACCT  
CAGCCCCACTATATCCCCAGCCATTGAAACCCCTGGCTTCTTCCGAAGGCTTCCAGGCTGAGGAATGTG  
GCATCCTGAATGGCTGTGAGAATGGCCGCTGTGTGCGTGTGCGCGAGGGCTACACTTGTGACTGCTTTGA  
AGGCTTCCAGCTGGATACAGCCCTCATGGCCTGTGTGGATGTGAATGAGTGTGAAGACCTGAACGGGCT  
CGGCACTCTGTGCGCATGGTCACTGCGAGAACACAGAGGGTTCCATCGCTGCCACTGTTCCCCTGGT

ACGTGGCAGAGCCCGGGCCCCACACTGTGCAGCCAAGGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR210089 representing NM\_021586  
Red=Cloning site Green=Tags(s)

MESTSLRGLRCPQLCSHSGAMRAPTTVRCSGRIQRARWRGFLPLVLALLMGTSQAQRDSVGRYEPASRDA  
NRLWRPVGNHAAAAAKVYSLFREPDAPVPGLSPSEWNQPGQIGPRLAEAEARRPSRAQQLRRVQSPVQ  
TRRSNPRGQQPPAARTAHSVVRLATPQRPAARRGRLTGRNVCGGQCCPGWTTSNSTNHCIKPVCQPPCQ  
NRGSCSRPQLCICRSGFRGARCEEVIPEEEFDPQNARVPVRRSVEGAPGPHRSSEARGSLVTRIQPLLP  
LPPPSRSLTSQTRPLQQHAGLSRTVRRYPATGTNGQLMSNALPSGPGPELRDSSQQAAMHNL SHPWGLN  
L TEKIKKIKVVF TPTICKQTCARGRCANTCEKGD TTTLYSQGGHGHDPKSGFRIYFCQIPCLNGGRCIGR  
DECWCPANSTGKFCFLPVPQPDREPPGRGSQHRALLEGLKQSTFTLPLSNQLASVNP SLVKVQMHPPE  
ASVQIHQVARVRGEVDPVPEDNSVETRASHRPHGSSGSHWASNSIPARAGEAPRPPVPVSRHYGLLGQC  
YLSTVNGQCANPLGELTSQEDCCSGVGT SWGVTSCAPCPPRAPFVIENGQLECPQGYKRLNLSHCQDIN  
ECLTLGLCKDSECVNTRGSYLCTCRPGLMLDPSRSRCSVDKAVSMKQGLCYRSMVSGTCTLPLVQRITKQ  
ICCCSRVKAWSKCEHCPLPGTEAFREICPAGHGAYSSSDIRLSMRKAEELASPVREQRQSSGPP  
PGAERQPLRAATATWIEAETLPDKGDSRAIQITTSAPHLPARVPGDATGRPTPSLPGQGIPEGPAEEQV  
IPSSDLVTHGPPGDFPCFAGASNICGPGTCVKLPNGYRCVCSPGYQLHPSQDYCTDDNECLRNPCEGRG  
RCVNSVGSYSCLCYPGYTLATLGDTQECQDVDECEQPGVCSGGRCNTEGSYHCECDQGYVMVRRGHCQD  
INECRHPGTCPDGRVCVNSPGSYTCLACEEGYIGQSGNCVDMNECLTPGICAHGRCINMEGSRFCSEPGY  
ELTPDKKGCARDVDECASRASCPTGLCLNTEGSFTCSACQSGYWNEDGTACEDLDECAFPVGCPTGVCTN  
TVGFSFCKDCDRGFRPSPLGNSCEDVDECEGPQNSCLGGECKNTDGSYQCLCPQGFQLANGTVCEDEVDEC  
VGEHHCAPHGECLNSPGSFFCLCAPGFAAEGGTRCQDVDECATTEPCLGGHCVNTEGSFNCLCETGFQP  
APDSGECVDIDECANDTVCGNHGFCNDTDGSFRCLCDQGFETSPSGWECVDVNECELMALAVCGDALCENV  
EGSFLCLCASDLEEYDAEEGHCRPRVAGAQRIPVPTTEEQAAGLTGMECYAEHNGGPPCSQILGQNSTQA  
ECCSTQGARWGETCDPCSEDSVEFSELCPSSGQYIPVEGAWTFGQAMYDADECILFGPALCQNGRCLN  
TVPGYICLCNPGYHYDAVSRKQDHNQCQDLACENGEVCVNTEGSFHCFCSPPLILDLSGQRCVNSTSSSE  
DFPDHDIHMDICWKKVTNDVCSQPLRGHHTTYTECCCQDGEAWSQQCALCPPRSSEVYAQLCNVARIEAE  
REAGIHFRPGYEGYGPDDLPETLYGPDGAPFYNLGPEDTVPEPPFSNTASHLGDNTPILEPPLQPSL  
QPHYIPSHSEPLASFEGLQAEECGILNGCENGRVVRREGYTCDCFEGFQLDTALMACVDVNECEDLNGP  
AALCAHGHCENTEGRCHCSPGYVAEPGPPHCAAKE

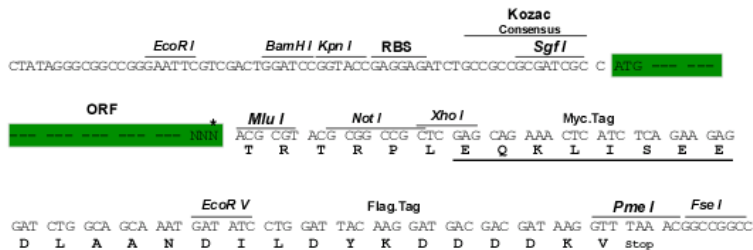
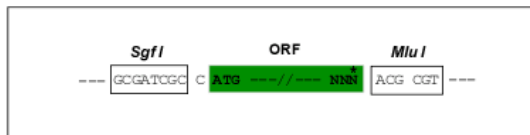
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

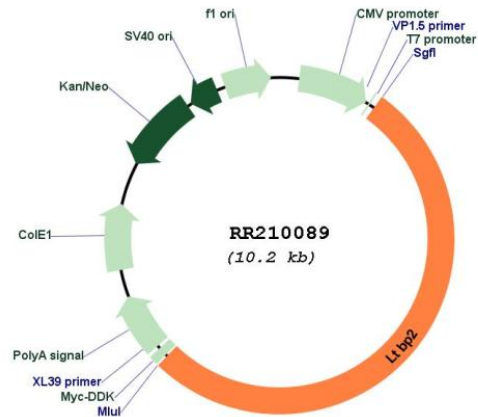
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



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

**Plasmid Map:**


**ACCN:** NM\_021586

**ORF Size:** 5361 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\\_021586.2](#), [NP\\_067597.2](#)

**RefSeq Size:** 6468 bp

**RefSeq ORF:** 5364 bp

**Locus ID:** 59106

**UniProt ID:** [O35806](#)

**Cytogenetics:** 6q31

**MW:** 192.4 kDa

**Gene Summary:** induced by TGFbeta1 and also acts to further activate TGF-beta1 signaling [RGD, Feb 2006]