

## Product datasheet for **RR201504**

### **Dtnbp1 (NM\_001037664) Rat Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Dtnbp1 (NM\_001037664) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Dtnbp1  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RR201504 representing NM\_001037664  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGGAGACCCTGCGGAGCGGCTGCTGAGCGTGCAGCAGGATTTACCTCCGGGCTAAAGACGTTAA  
GCGACAAGTCAAAGAAGCAAAGTAAAAAGCAGACCCAGGACTGCTCCCTACTTACCAAAGTACTCTGC  
TGGACTGGACTTACTTAGCAGGTATGAGGATACGTGGGCTGCACACAGAAGCAAGGAATGTGCA  
GACGCTGGCGAGCTGGTGGACAGCGAGGTGGTCACTGTCTGCCACTGGGAGAAGAAGAGGACCAGCC  
TGGCCGAGCTGCAGGAGCAGCTGCAGCAGCTGCCAGCTCTCCTCCAGGACGTGGAGTCCCTTGATGGCAAG  
CCTGGCTCATTTAGAGACGAGTTTTGAAGAGGTAGAAAACCATCTGTTGCATCTGGAGGACTTGTGTGGG  
CAGTGTGAGTTAGAAAGACATAAACAGGCCATGCCCGACACCTGGAGGATTACAAGAAAAGTAAGAGGA  
AGGAGCTTGAAGCCTTCAAAGCTGAACTCGATACAGAACACGCACAGAAGATCCTGGAAATGGAGCACAC  
CCAGCAGCTGAAGCTGAAGGAGCGGCAGAAGTTCTTCGAGGAGGCTTCCAGCAGGACATGGAGCAATC  
CTGTCCACAGGTCACCTGCAGATTGCAGAGAGGCGAGAGCCATGGGCAGCATGTCCTCCATGGAAGTGA  
ATGTGGACGTGCTGGAGCAGATGGACCTGATGGACCTCTCTGACCAGGAGGCGCTCGATGCTTCTTGAA  
CTCTGGCGGAGAGACAATACTGTGATATCCCCTGGTTTGGAGATGGAATCCAACCCAGTCAGAATGAA  
ATGAATCTTCAGATTCAAATCCCTCAGAATCAGCGTCCCAGCCACCTGCCTCACCTCTGCCTGCACTG  
ACCTGGACTGCTGATGCTCCCCTCATCCAGGCTGATGAAGAGGAGGTACAAGTGGACACGGCCTTGGT  
CACATTAACACTGACAGAAAGTCCACCCAGGTGTCAGTGATGACAGTGACCAGTGTGACTCAACTCAG  
GACATT

**ACGCGT**ACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RR201504 representing NM\_001037664  
Red=Cloning site Green=Tags(s)

MLETLRERLLSVQQDFTSGLKTLSDKSKEAKVKSRRPTAPYLPKYSAGLDLLSRYEDTWAALHRRAKECA  
 DAGELVDSEVVMLSAHWEKKRTSLAELQEQLQQLPALLQDVESLMASLAHLETSFEEVENHLLHLEDLCG  
 QCELERHKQAHARHLEDYKKSRRKELEAFKAELDTEHAQKILEMEHTQQLKLERQKFFEEAFQQDMEQY  
 LSTGHLQIAERREPMGSMSSMEVNVVDVLEQMDLMDLSDQEALDVFLNSGGEDNTVISPGLMEMSNPSQNE  
 MNLQIPNPSESASQPPASPSACTDLDTADAPLIQADEEEVQVDTALVTLNTRKSTPGVSDSDQCDSTQ  
 DI

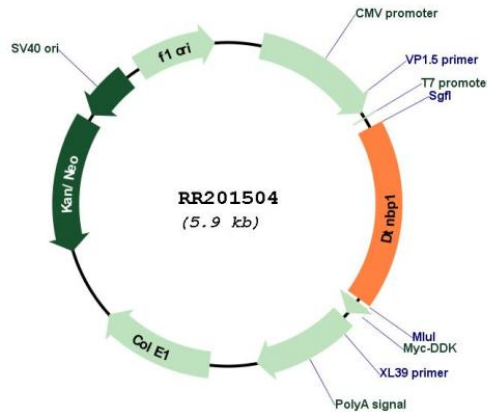
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001037664

<b>ORF Size:</b>	1056 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001037664.1</a> , <a href="#">NP_001032753.1</a>
<b>RefSeq Size:</b>	1319 bp
<b>RefSeq ORF:</b>	1059 bp
<b>Locus ID:</b>	641528
<b>UniProt ID:</b>	<a href="#">Q5M834</a>
<b>Cytogenetics:</b>	17p14
<b>MW:</b>	39.7 kDa
<b>Gene Summary:</b>	Component of the BLOC-1 complex, a complex that is required for normal biogenesis of lysosome-related organelles (LRO), such as platelet dense granules and melanosomes. In concert with the AP-3 complex, the BLOC-1 complex is required to target membrane protein cargos into vesicles assembled at cell bodies for delivery into neurites and nerve terminals. The BLOC-1 complex, in association with SNARE proteins, is also proposed to be involved in neurite extension. Associates with the BLOC-2 complex to facilitate the transport of TYRP1 independent of AP-3 function. Plays a role in synaptic vesicle trafficking and in neurotransmitter release. Plays a role in the regulation of cell surface exposure of DRD2. May play a role in actin cytoskeleton reorganization and neurite outgrowth. May modulate MAPK8 phosphorylation. Appears to promote neuronal transmission and viability through regulating the expression of SNAP25 and SYN1, modulating PI3-kinase-Akt signaling and influencing glutamatergic release. Regulates the expression of SYN1 through binding to its promoter. Modulates prefrontal cortical activity via the dopamine/D2 pathway.[UniProtKB/Swiss-Prot Function]