

Product datasheet for **RN213969**

Cbln1 (NM_001109127) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cbln1 (NM_001109127) Rat Untagged Clone
Tag: Tag Free
Symbol: Cbln1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN213969 representing NM_001109127
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGGGCGTCGTGGAGCTGCTGTTGTTGGGGGCTGCGTGGCTGGCAGGCCAGCCCGCGGCCAGAAATG
AGACAGAACCCATCGTCCTGGAGGGCAAGTGCCTGGTGGTGTGTGACTCCAACCCACGTCGGACCCCTAC
GGGCACTGCTCTGGGCATCTCTGTGCGCTCGGGCAGCCCAAGGTGGCTTCTCTGCCATCAGGAGCACC
AACCATGAGCCGTCGAGATGAGTAATCGCACCATGATCATCTACTTCGACCAGGTACTAGTGAACATCG
GGAACAACCTTTGACTCAGAACGCAGCACTTTCATCGCCCCGCGCAAAGGCATCTACAGTTTTAACTTCCA
CGTGGTAAAAGTCTACAACAGACAGACCATCCAGGTGAGCCTCATGTTGAACGGTTGGCCGGTGATTTC
GCCTTCGCCGGCGACCAAGACGTGACACGCGAGGCTGCCAGCAACGGCGTCCTCATCCAGATGGAGAAA
GCGACCGAGCATACCTCAAGCTGGAGCGGGGAACTTGATGGGGGGCTGGAAGTACTCAACCTTCTCTGG
ATTCTCGTGTTCCCT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001109127
Insert Size: 582 bp
OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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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:	<u>NM_001109127.1, NP_001102597.1</u>
RefSeq Size:	2444 bp
RefSeq ORF:	582 bp
Locus ID:	498922
UniProt ID:	<u>P63182</u>
Cytogenetics:	19p11
Gene Summary:	Required for synapse integrity and synaptic plasticity. During cerebellar synapse formation, essential for the matching and maintenance of pre- and post-synaptic elements at parallel fiber-Purkinje cell synapses, the establishment of the proper pattern of climbing fiber-Purkinje cell innervation, and induction of long-term depression at parallel fiber-Purkinje cell synapses. Plays a role as a synaptic organizer that acts bidirectionally on both pre- and post-synaptic components. On the one hand induces accumulation of synaptic vesicles in the pre-synaptic part by binding with NRXN1 and in other hand induces clustering of GRID2 and its associated proteins at the post-synaptic site through association of GRID2. NRXN1-CBLN1-GRID2 complex directly induces parallel fiber protrusions that encapsulate spines of Purkinje cells leading to accumulation of GRID2 and synaptic vesicles. Required for CBLN3 export from the endoplasmic reticulum and secretion (By similarity). NRXN1-CBLN1-GRID2 complex mediates the D-Serine-dependent long term depression signals and AMPA receptor endocytosis (By similarity).[UniProtKB/Swiss-Prot Function]