

Product datasheet for **MG226558**

Cbln1 (NM_019626) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cbln1 (NM_019626) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Cbln1
Synonyms: AI323299
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG226558 representing NM_019626
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCTGGGCGTCGTGGAGCTGCTGCTGTTGGGACTGCGTGGCTGGCAGGCCAGCCCGGGCAGAATG
 AGACAGAGCCCATCGTACTGGAGGGCAAGTGCCTGGTGGTGTGTGACTCCAACCCACGTCTGACCCCTAC
 GGGCACTGCTCTGGGCATCTCTGTGCGCTCCGGCAGGCCAAGGTGGCTTTCTCTGCCATCAGGAGCACC
 AACCATGAGCCGTCGGAGATGAGTAATCGACCATGATCATCTACTTCGACCAGGTAAGTGAACATCG
 GGAACAACCTTTGACTCAGAACGCAGCACTTTCATCGCCCCGCGCAAAGGCATCTACAGTTTAACTCCA
 CGTGGTAAAAGTCTACAACAGACAGACCATCCAGGTGAGCCTCATGTTGAACGGGTGGCCGGTGATTCA
 GCCTTCGCGGTGACCAAGACGTGACACGCGAGGCCGCCAGCAACGGCGTCCTCATCCAGATGGAGAAAAG
 GCGACCGAGCATACTCAAGCTGGAGCGGGGAACTTGATGGGGGCTGGAAGTACTCAACCTTCTCTGG
 ATTCTCGTGTTCCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG226558 representing NM_019626
 Red=Cloning site Green=Tags(s)

MLGVVELLLLGTAWLAGPARGQNETEPIVLEKCLVVCDNSDPTGTALGISVRSKSAKVAFAIRST
 NHEPSEMSNRTMIYFDQVLVNIIGNFDSERSTFIAPRKGISYFNHVVVYVNRQTIQVSLMLNGWPVIS
 AFAGDQVDTREASNGVLIQMEKGDRAYLKLERGNLMGGWKYSTFSGFLVFPL

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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_019626.3](#), [NP_062600.2](#)

RefSeq Size: 2345 bp

RefSeq ORF: 582 bp

Locus ID: 12404

UniProt ID: [Q9R171](#)

Cytogenetics: 8 42.16 cM

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 (PubMed:16234806). Plays a role as a synaptic organizer that acts bidirectionally on both pre- and post-synaptic components (PubMed:20395510). 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 (PubMed:21410790). NRXN1-CBLN1-GRID2 complex directly induces parallel fiber protrusions that encapsulate spines of Purkinje cells leading to accumulation of GRID2 and synaptic vesicles (PubMed:23141067). Required for CBLN3 export from the endoplasmic reticulum and secretion (PubMed:17030622, PubMed:17331201). NRXN1-CBLN1-GRID2 complex mediates the D-Serine-dependent long term depression signals and AMPA receptor endocytosis (By similarity).[UniProtKB/Swiss-Prot Function]