

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 >MG226558 representing NM_019626

Red=Cloning site Blue=ORF Green=Tags(s) Sequence:

TTTTGTAATACGACTCACTATAGGGCCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

AGACAGAGCCCATCGTACTGGAGGGCAAGTGCCTGGTGGTGTGTGACTCCAACCCCACGTCTGACCCTAC GGGCACTGCTCTGGGCATCTCTGTGCGCTCCGGCAGCGCCAAGGTGGCTTTCTCTGCCATCAGGAGCACC AACCATGAGCCGTCCGAGATGAGTAATCGCACCATGATCATCTACTTCGACCAGGTACTAGTGAACATCG GGAACAACTTTGACTCAGAACGCAGCACTTTCATCGCCCCGCGCAAAGGCATCTACAGTTTTAACTTCCA CGTGGTGAAAGTCTACAACAGACAGACCATCCAGGTGAGCCTCATGTTGAACGGGTGGCCGGTGATTTCA GCCTTCGCCGGTGACCAAGACGTGACACGCGAGGCCGCCAGCAACGGCGTCCTCATCCAGATGGAGAAAG GCGACCGAGCATACCTCAAGCTGGAGCGGGGGAACTTGATGGGGGGGCTGGAAGTACTCAACCTTCTCTGG

ATTCCTCGTGTTTCCCCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

>MG226558 representing NM_019626 **Protein Sequence:**

Red=Cloning site Green=Tags(s)

 ${\tt MLGVVELLLGTAWLAGPARGQNETEPIVLEGKCLVVCDSNPTSDPTGTALGISVRSGSAKVAFSAIRST}$ NHEPSEMSNRTMIIYFDQVLVNIGNNFDSERSTFIAPRKGIYSFNFHVVKVYNRQTIQVSLMLNGWPVIS

AFAGDQDVTREAASNGVLIQMEKGDRAYLKLERGNLMGGWKYSTFSGFLVFPL

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul



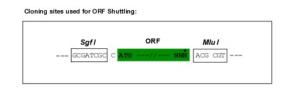
OriGene Technologies, Inc. 9620 Medical Center Drive, Ste 200

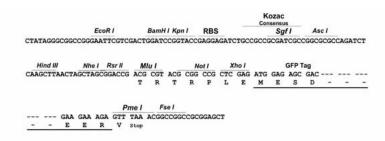
CN: techsupport@origene.cn

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com

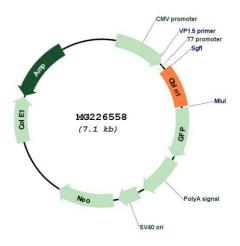


Cloning Scheme:





Plasmid Map:



ACCN: NM_019626

ORF Size: 579 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: <u>NM 019626.3</u>, <u>NP 062600.2</u>

 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