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# Product datasheet for RC201924

## Calretinin (CALB2) (NM_001740) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | Calretinin (CALB2) (NM_001740) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | Calretinin |
| **Synonyms:** | CAB29; CAL2; CR |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |

**ORF Nucleotide Sequence:**

>RC201924 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGGCCCGCAGCAGCAGCCCCCTTACCTGCACCTGGCCGAGCTGACGGCGTCCCAGTTCCTGGAAA
TATGGAAGCACTTTGACGCAGACGGAAATGGGTATATTGAAGGTAAAGAGCTAGAAAACTTTTTCCAAGA
GCTGGAGAAGGCAAGGAAAGGCTCTGGCATGATGTCAAAGAGTGACAACTTTGGAGAAAAGATGAAGGAG
TTCATGCAGAAGTATGATAAAAACTCAGATGGGAAAATCGAGATGGCAGAGCTGGCGCAGATCCTGCCAA
CCGAAGAGAACTTCCTTCTGTGCTTCAGGCAGCACGTGGGCTCCAGCACCGAGTTTATGGAGGCTTGGCG
GAAGTACGACACAGACAGGAGTGGCTACATCGAAGCCAATGAGCTCAAGGGATTCCTGTCAGACCTGCTG
AAGAAGGCGAACCGGCCGTACGATGAGCCCAAGCTCCAGGAATACACCCAAACCATACTACGGATGTTTG
ACTTGAACGGGGATGGCAAATTGGGCCTCTCAGAGATGTCCCGACTCCTGCCTGTCCAGGAAAACTTCCT
GCTTAAATTTCAGGGCATGAAGCTGACCTCAGAGGAGTTTAACGCGATCTTCACATTTTACGACAAGGAT
AGAAGCGGCTACATTGACGAGCATGAGCTGGATGCCCTTTTGAAGGATCTGTACGAGAAAAACAAAAAGG
AAATGAATATTCAACAGCTCACCAACTACAGAAAGAGCGTCATGTCCTTGGCAGAGGCAGGGAAGCTCTA
CCGCAAGGACCTGGAGATTGTGCTCTGCAGCGAGCCCCCCATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:**

>RC201924 protein sequence
Red=Cloning site Green=Tags(s)

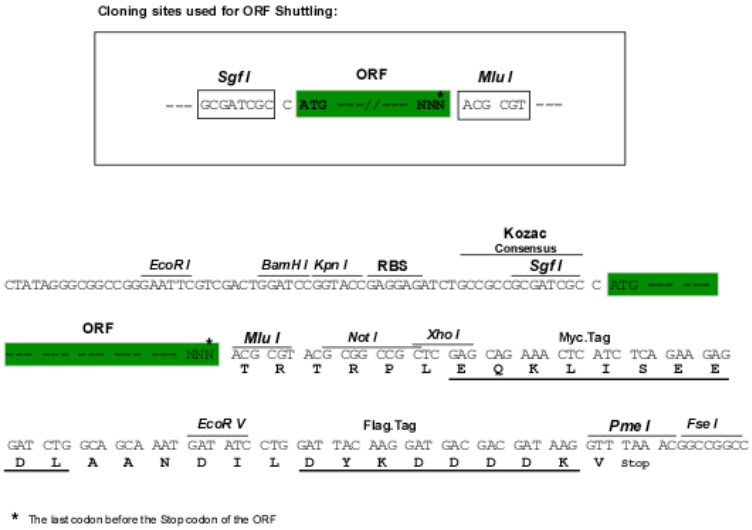
MAGPQQQPPYLHLAELTASQFLEIWKHFDADGNGYIEGKELENFFQELEKARKGSGMMSKSDNFGEKMKE
FMQKYDKNSDGKIEMAELAQILPTEENFLLCFRQHVGSSTEFMEAWRKYDTDRSGYIEANELKGFLSDLL
KKANRPYDEPKLQEYTQTILRMFDLNGDGKLGLSEMSRLLPVQENFLLKFQGMKLTSEEFNAIFTFYDKD
RSGYIDEHELDALLKDLYEKNKKEMNIQQLTNYRKSVMSLAEAGKLYRKDLEIVLCSEPPM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** https://cdn.origene.com/chromatograms/mk6010_c06.zip

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_001740

**ORF Size:** 813 bp

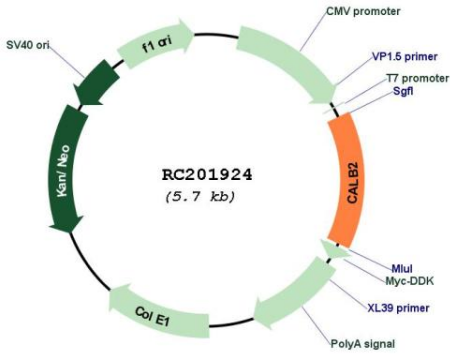
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

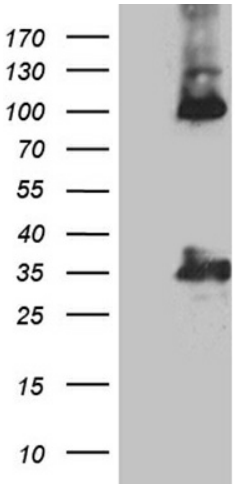
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

| | |
|---|---|
| **Reconstitution Method:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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. |
| **Note:** | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required. |
| **RefSeq:** | NM_001740.5 |
| **RefSeq Size:** | 1485 bp |
| **RefSeq ORF:** | 816 bp |
| **Locus ID:** | 794 |
| **UniProt ID:** | P22676 |
| **Cytogenetics:** | 16q22.2 |
| **Domains:** | EFh |
| **MW:** | 31.6 kDa |
| **Gene Summary:** | This gene encodes an intracellular calcium-binding protein belonging to the troponin C superfamily. Members of this protein family have six EF-hand domains which bind calcium. This protein plays a role in diverse cellular functions, including message targeting and intracellular calcium buffering. It also functions as a modulator of neuronal excitability, and is a diagnostic marker for some human diseases, including Hirschsprung disease and some cancers. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2010] |

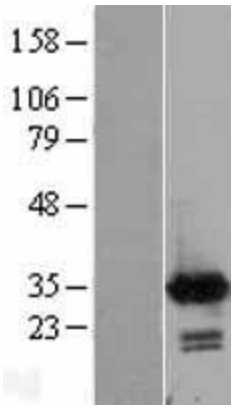
## Product images:



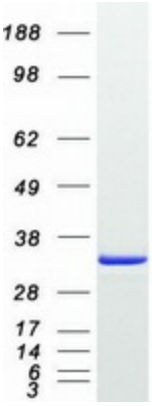

Circular map for RC201924




HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CALB2 (Cat# RC201924, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CALB2 (Cat# [TA804244]). Positive lysates [LY400659] (100ug) and [LC400659] (20ug) can be purchased separately from OriGene.




Western blot validation of overexpression lysate (Cat# [LY400659]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201924 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).




Coomassie blue staining of purified CALB2 protein (Cat# [TP301924]). The protein was produced from HEK293T cells transfected with CALB2 cDNA clone (Cat# RC201924) using MegaTran 2.0 (Cat# [TT210002]).