

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) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGGCCCGCAGCAGCAGCCCTTACCTGCACCTGGCCGAGCTGACGGCGTCCCAGTTCCTGGAAA
TATGGAAGCACTTTGACGCAGACGGAAATGGGTATATTGAAGGTAAGAGCTAGAAAACCTTTTCCAAGA
GCTGGAGAAGGCAAGGAAAGGCTCTGGCATGATGTCAAAGAGTGACAACCTTTGGAGAAAAGATGAAGGAG
TTCATGCAGAAGTATGATAAAAACCTCAGATGGGAAAATCGAGATGGCAGAGCTGGCGCAGATCCTGCCAA
CCGAAGAGAACCTCCTTCTGTGCTTCAGGCAGCACGTGGGCTCCAGCACCGAGTTTATGGAGGCTTGCCG
GAAGTACGACACAGACAGGAGTGGCTACATCGAAGCCAATGAGCTCAAGGGATTCCTGTCAGACCTGCTG
AAGAAGGCGAACCAGCCGTACGATGAGCCCAAGCTCCAGGAATACACCCAAACCATACTACGGATGTTTTG
ACTTGAACGGGGATGGCAAATTTGGGCTCTCAGAGATGTCCCAGCTCCTGCCTGTCCAGGAAAACCTCCT
GCTTAAATTTTCAGGGCATGAAGCTGACCTCAGAGGAGTTTAAACGCGATCTTCACATTTTACGACAAGGAT
AGAAGCGGCTACATTGACGAGCATGAGCTGGATGCCCTTTTGAAGGATCTGTACGAGAAAAACAAAAAGG
AAATGAATATTCAACAGCTCACCAACTACAGAAAGAGCGTCATGTCTTGGCAGAGGCAGGGAAGCTCTA
CCGAAGGACCTGGAGATTGTGCTCTGCAGCGAGCCCCCATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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

MAGPQQPPYLHLAELTASQFLEIWKHFDADGNGYIEGKELENFFQELEKARKGSGMMSKSDNFGEKMKE
 FMQKYDKNSDGKIEMAELAQILPTEENFLLCFRQHVGSSTEFMEAWRKYDTRSGYIEANELKGFLLSDLL
 KKANRPYDEPKLQEYQTILRMFDLNGDGKLGLEMSRLLPVQENFLLKFQGMKLTSEEFNAIFTFYDKD
 RSGYIDEHEL DALLKDL YEKNKEMNIQQLTNYRKSVMSLAEAGKLYRKDLEIVLCSEPPM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

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.
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_001740.5](#)

RefSeq Size: 1485 bp

RefSeq ORF: 816 bp

Locus ID: 794

UniProt ID: [P22676](#)

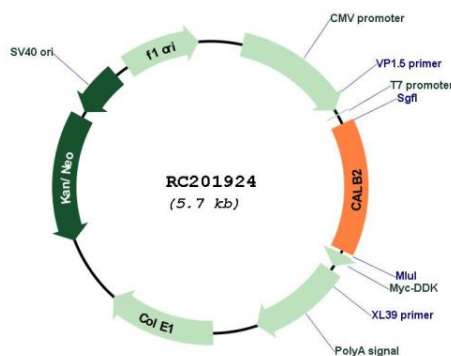
Cytogenetics: 16q22.2

Domains: EFh

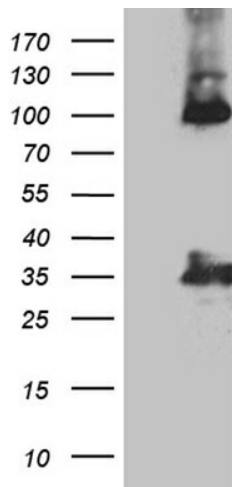
MW: 31.6 kDa

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]

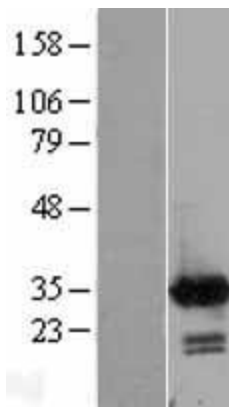
Product images:



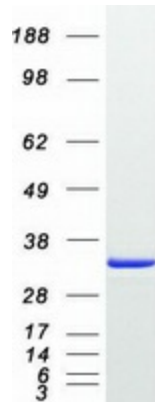
Circular map for RC201924



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 untransfected 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]).