

Product datasheet for **MG215924**

Chp2 (NM_027363) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Chp2 (NM_027363) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Chp2
Synonyms: 2010110P09Rik; Cbhp2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG215924 representing NM_027363
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCTCACGAAGCTCTCATATCGCGCTCATTCCAGACGTGGAGCACATTCGCAGAGAGACAGGCTTCT
CGCAAGCCAGCCTGCTCCGCCTTACCACCGGTTCCAAGCCCTGGACAGGGATGAAAAGGGCTTCTTAAG
CCGCCTAGACCTCAGCAGATCGGAGCACTGGCTGTGAATCCACTGGGTGACCGCATTATAGACAGCTTC
TCCCCAACGGAAGTCAGAGACTGTATTTGCGAGGCTTTGCCAGGGTCTGGCTTATTTTCGACCTATAG
ATGAAGAAGATGCCACACTCCGAGACCCCAAGCAACCTGAACCCCTAAACAGCAGAAATGAACAACTGCG
CTTTGCATTTTCAGCTCTATGATCTGGATCGGGATGGGAAGATCTCCAGGAATGAAATGCTACAGGTTCTC
CGCCTCATGGTTGGGGTCCAGGTGACGGATGAGCAGCTGGAGAGCATCACAGACCGTACAGTGCAGGAAG
CTGATGAGGACGGGGATGGGGCTGTGTCCTTCTGGAGTTCACCAAGTCTTAGAGAAGATGAACATCGA
ACAAAAATGAGCATCCGGATCCTGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG215924 representing NM_027363
Red=Cloning site Green=Tags(s)

MGRSSSHIALIPDVEHIRRETGFSSQASLLRLYHRFQALDRDEKGFLSRLDLQQIGALAVNPLGDRIIDSF
FPNGSQRLYFAGFARVLAYFRPIDEEDATLRDPKQPEPLNSRMNKLRFQFLYDLDRDGKISRNEMLQVL
RLMVGQVQVTEQLESITDRTVQEADEDGDGAVSFLEFTKSLEKMNIEQKMSIRILK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

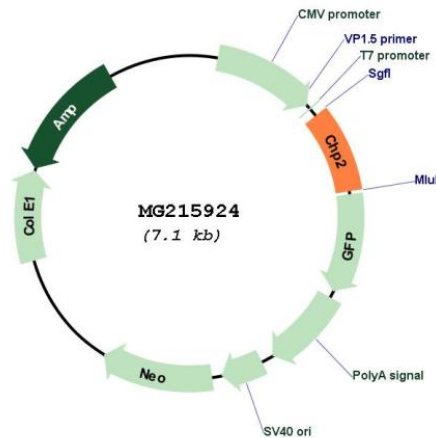


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Cloning Scheme:



Plasmid Map:



ACCN: NM_027363

ORF Size: 588 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_027363.1](#), [NP_081639.1](#)

RefSeq Size: 1171 bp

RefSeq ORF: 591 bp

Locus ID: 70261

UniProt ID: [Q9D869](#)

Cytogenetics: 7 F2

Gene Summary: Functions as an integral cofactor in cell pH regulation by controlling plasma membrane-type Na(+)/H(+) exchange activity. Binds to and activates SLC9A1/NHE1 in a serum-independent manner, thus increasing pH and protecting cells from serum deprivation-induced death. Also plays a role in the regulation of cell proliferation and tumor growth by increasing the phosphatase activity of PPP3CA in a calcium-dependent manner. Activator of the calcineurin/NFAT signaling pathway. Involved in the cytoplasmic translocation of the transcription factor NFATC3 to the nucleus (By similarity).[UniProtKB/Swiss-Prot Function]