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Product datasheet for RC212776

CHP2 (NM_022097) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CHP2 (NM_022097) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CHP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC212776 representing NM_022097
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGTCGCGCAGCTCCCACGCCGCGGTCATTCCCGACGGGGACAGTATTCGGCGAGAGACCGGCTTCT
CCCAAGCCAGCCTGCTCCGCCTGCACCACCGGTTCCGGGCACTGGACAGGAATAAGAAGGGCTACCTGAG
CCGCATGGATCTCCAGCAGATAGGGGCGCTCGCCGTGAACCCCCTGGGAGACCGAATTATAGAAAGCTTC
TTCCCCGATGGGAGCCAGCGAGTGGATTTCCCAGGCTTTGTCAGGGTCTTGGCTCATTTTCGCCCTGTAG
AAGATGAGGACACAGAAACCCAAGACCCCAAGAAACCTGAACCTCTCAACAGCAGAAGGAACAAACTTCA
CTATGCATTTCAGCTCTATGACCTGGATCGCGATGGGAAGATCTCCAGGCATGAGATGCTGCAGGTTCTC
CGTCTGATGGTTGGGGTACAGGTGACAGAAGAGCAGCTGGAGAACATCGCTGACCGCACGGTGCAGGAGG
CTGATGAAGATGGGGATGGGGCTGTGTCCTTCGTGGAGTTCACCAAGTCCTTAGAGAAGATGGACGTTGA
GCAAAAAATGAGCATCCGGATCCTGAAG

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212776 representing NM_022097
Red=Cloning site Green=Tags(s)

MGSRSSHAAVIPDGDSIRRETGFSQASLLRLHHRFRALDRNKKGYLSRMDLQQIGALAVNPLGDRIIESF
FPDGSQRVDFPGFVRVLAHFRPVEDEDTETQDPKKPEPLNSRRNKLHYAFQLYDLDRDGKISRHEMLQVL
RLMVGVQVTEEQLENIADRTVQEADEDGDGAVSFVEFTKSLEKMDVEQKMSIRILK

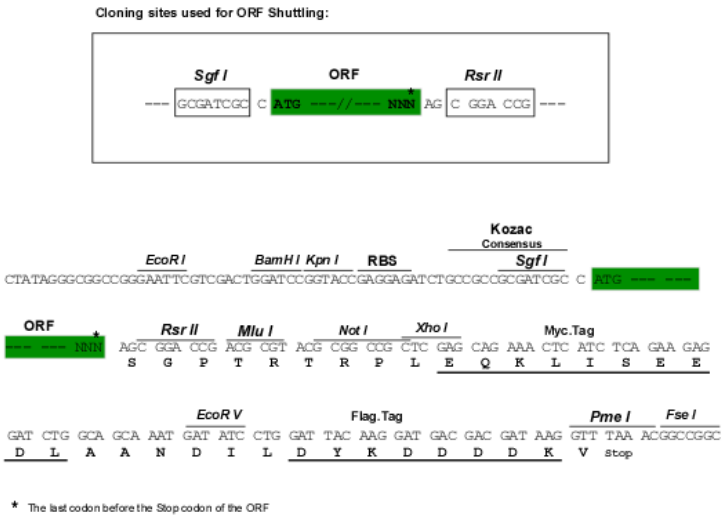
SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8022_h05.zip

View online »

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_022097

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_022097.4

RefSeq Size: 2396 bp

RefSeq ORF: 591 bp

Locus ID: 63928

UniProt ID: O43745

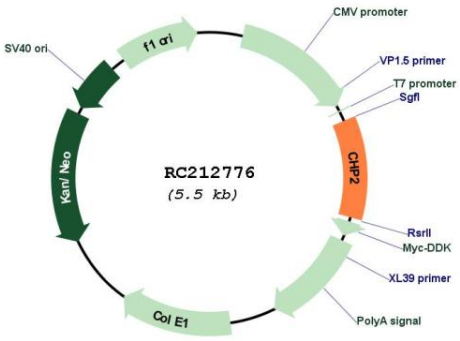
Cytogenetics: 16p12.2

Protein Pathways: Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Apoptosis, Axon guidance, B cell receptor signaling pathway, Calcium signaling pathway, Long-term potentiation, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, Oocyte meiosis, T cell receptor signaling pathway, VEGF signaling pathway, Wnt signaling pathway

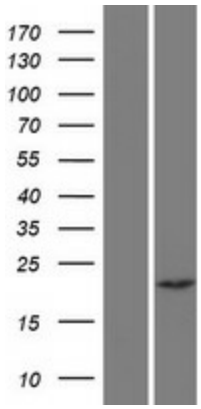
MW: 22.3 kDa

Gene Summary: This gene product is a small calcium-binding protein that regulates cell pH by controlling plasma membrane-type Na+/H+ exchange activity. This protein shares sequence similarity with calcineurin B and can bind to and stimulate the protein phosphatase activity of calcineurin A (CnA) and functions in the calcineurin/NFAT (nuclear factor of activated T cells) signaling pathway. Another member of the CHP subfamily, Calcineurin B homologous protein 1, is located on Chromosome 15 and is an inhibitor of calcineurin activity and has a genetic phenotype associated with Parkinson's Disease (OMIM:606988). This gene was initially identified as a tumor-associated antigen and was previously referred to as Hepatocellular carcinoma-associated antigen 520. [provided by RefSeq, Jul 2013]

Product images:



Circular map for RC212776



Western blot validation of overexpression lysate (Cat# [LY411766]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212776 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).