OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC201928

Calcium binding protein P22 (CHP1) (NM_007236) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calcium binding protein P22 (CHP1) (NM_007236) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Calcium binding protein P22
Synonyms:	CHP; p22; p24; Sid470p; SLC9A1BP; SPAX9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC201928 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGTTCTCGGGCCTCCACGTTACTGCGGGACGAAGAGCTCGAGGAGATCAAGAAGGAGACCGGCTTTT
CCCACAGTCAAATCACTCGCCTCTACAGCCGGTTCACCAGCCTGGACAAAGGAGAGAATGGGACTCTCAG
CCGGGAAGATTTCCAGAGGATTCCAGAACTTGCCATCAACCCACTGGGGGACCGGATCATCAATGCCTTC
TTTCCAGAGGGAGAGGACCAGGTAAACTTCCGTGGATTCATGCGAACTTTGGCTCATTTCCGCCCCATTG
AGGATAATGAAAAGAGCAAAGATGTGAATGGACCCGAACCACTCAACAGCCGAAGCAACAAACTGCACTT
TGCTTTTCGACTATATGATTTGGATAAAGATGAAAAGATCTCCCGTGATGAGCTGTTACAGGTGCTACGC
ATGATGGTCGGAGTAAATATCTCAGATGAGCAGCTGGGCAGCATCGCAGACAGGACCATTCAGGAGGCTG
ATCAGGATGGGGACAGTGCCATATCTTTCACAGAATTTGTTAAGGTTTTGGAGAAGGTGGATGTAGAACA
GAAAATGAGCATCCGATTTCTTCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201928 protein sequence
Red=Cloning site Green=Tags(s)

MGSRASTLLRDEELEEIKKETGFSHSQITRLYSRFTSLDKGENGTLSREDFQRIPELAINPLGDRIINAF
FPEGEDQVNFRGFMRTLAHFRPIEDNEKSKDVNGPEPLNSRSNKLHFAFRLYDLDKDEKISRDELLQVLR
MMVGVNISDEQLGSIADRTIQEADQDGDSAISFTEFVKVLEKVDVEQKMSIRFLH

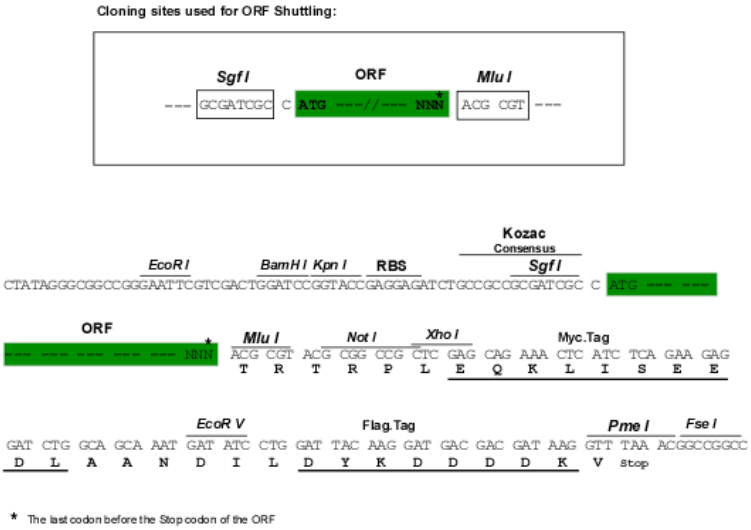
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

View online »

Chromatograms: https://cdn.origene.com/chromatograms/mk6125_e03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_007236

ORF Size: 585 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.

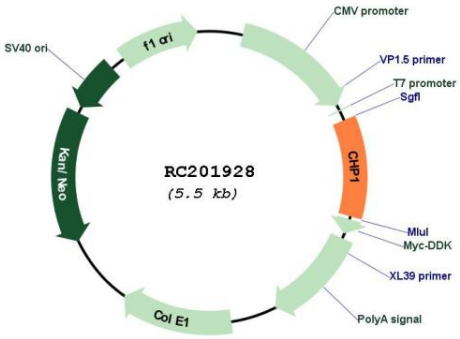
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_007236.5

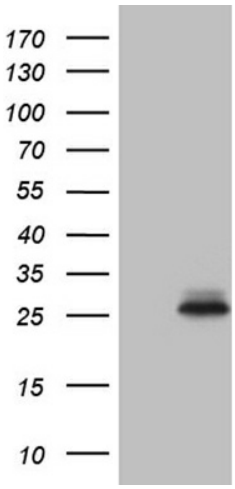
RefSeq Size: 3230 bp

RefSeq ORF:	588 bp
Locus ID:	11261
UniProt ID:	Q99653
Cytogenetics:	15q15.1
Domains:	EFh
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:	22.5 kDa
Gene Summary:	This gene encodes a phosphoprotein that binds to the Na+/H+ exchanger NHE1. This protein serves as an essential cofactor which supports the physiological activity of NHE family members and may play a role in the mitogenic regulation of NHE1. The protein shares similarity with calcineurin B and calmodulin and it is also known to be an endogenous inhibitor of calcineurin activity. [provided by RefSeq, Jul 2008]

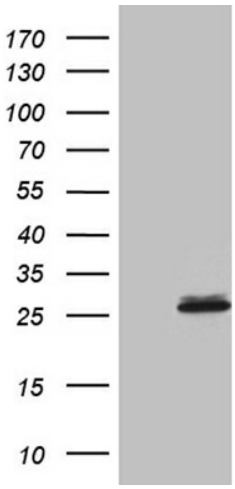
Product images:



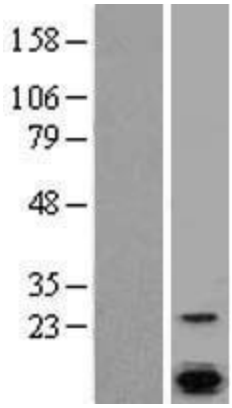
Circular map for RC201928



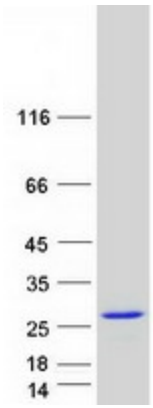
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY CHP1 (RC201928, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CHP1 (1:2000) ([TA810172]). Positive lysates [LY402116] (100ug) and [LC402116] (20ug) can be purchased separately from OriGene.



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CHP (Cat# RC201928, 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-CHP (Cat# [TA810226])(1:2000). Positive lysates [LY402116] (100ug) and [LC402116] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402116]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201928 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CHP1 protein (Cat# [TP301928]). The protein was produced from HEK293T cells transfected with CHP1 cDNA clone (Cat# RC201928) using MegaTran 2.0 (Cat# [TT210002]).