

Product datasheet for **RG212776**

CHP2 (NM_022097) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: CHP2 (NM_022097) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: CHP2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG212776 representing NM_022097
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGGTCGCGCAGCTCCCACGCCGCGGTATTCCCGACGGGGACAGTATTCGGCGAGAGACCGGCTTCT
 CCCAAGCCAGCCTGCTCCGCCTGCACCACCGGTTCCGGGCACTGGACAGGAATAAGAAGGGCTACCTGAG
 CCGCATGGATCTCCAGCAGATAGGGGCGCTCGCCGTGAACCCCTGGGAGACCGAATTATAGAAAGCTTC
 TTCCCCGATGGGAGCCAGCGAGTGGATTCCCAGGCTTTGTCAGGGTCTTGGCTCATTTTCGCCCTGTAG
 AAGATGAGGACACAGAAACCCAAGACCCCAAGAAACCTGAACCTCTCAACAGCAGAAGGAACAACTTCA
 CTATGCATTTTCAGCTCTATGACCTGGATCGCGATGGGAAGATCTCCAGGCATGAGATGCTGCAGGTTCTC
 CGTCTGATGGTTGGGTACAGGTGACAGAAGAGCAGCTGGAGAACATCGCTGACCGCACGGTGCAGGAGG
 CTGATGAAGATGGGGATGGGGCTGTGTCTTCGTGGAGTTCACCAAGTCTTAGAGAAGATGGACGTTGA
 GCAAAAAATGAGCATCCGGATCCTGAAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG212776 representing NM_022097
 Red=Cloning site Green=Tags(s)

MGRSSSHAAVIPDGDSIRRETGFSSQASLLRLHHRFRALDRNKKGYLSRMDLQQIGALAVNPLGDRIIESF
 FPDGSQRVDFPGFVRVLAHFRPVEDEDTETQDPKKPEPLNSRRNKLHYAFQLYDLDRDGKISRHEMLQVL
 RLMVGVQVTEEQLENIADRTVQEADEDGDGAVSFVEFTKSLEKMDVEQKMSIRILK

SGP**TRRRLE** - GFP Tag - V

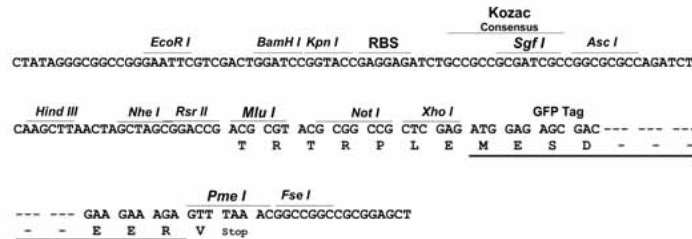
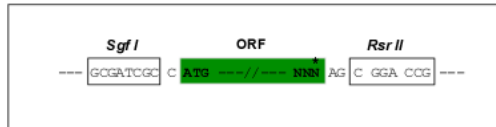
Restriction Sites: SgfI-RsrII



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Cloning Scheme:

Cloning sites used for ORF Shuttling:


Plasmid Map:

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:	<ol style="list-style-type: none">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
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]