

## Product datasheet for **RG216112**

### SLC4A10 (NM\_022058) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SLC4A10 (NM_022058) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC4A10
Synonyms:	NBCn2; NCBE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG216112 representing NM_022058 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGATTAAGACCAGGGAGCCAAATGGAGCCGCTGCTGCCTACGAGAAATGATGAAGAAGCAGTTG  
TGGATAGAGGTGGAACCTGTTCTATTCTCAAACACACTTTGAGAAAGAAGATTTAGAAGTCATCGAAC  
ACTATTTATTGGAGTACATGTGCCCTTGGGAGGAAGAAAAGCCATCGACGTCACAGGCATCGTGGTCAT  
AAACACAGAAAGAGAGACAGAGAAAGAGATTTCAGGATTAGAGGATGGAAGGGAGTCACCTCTTTTGACA  
CCCCATCACAGAGGGTACAGTTTATTCTTGAACCGAGGATGATGACGAGGAACACATTCCTCATGACCT  
TTTCACAGAACTGGATGAGATTTGTTGGCGTGAAGGTGAGGACGCTGAGTGGCGAGAAAACAGCCAGGTGG  
TTGAAGTTTGAAGAAGATGTGGAAGATGGAGGAGAAAAGGTGGAGCAAGCCTTATGTGGCTACTCTTTCAT  
TGCACAGCTTGTTTGAATTGAGAAGTTGTATTCTGAATGGAACCTGTTGCTGGACATGCATGCCAACAC  
TTTAGAAGAAATTGCAGATATGGTTCTTGACCAACAAGTGAGCTCAGGTCAGCTGAATGAAGATGTACGC  
CATAGGGTCCATGAGGCATTGATGAAACAGCATCATCATCAGAATCAGAAAAAATCACCAACAGGATTC  
CCATTGTTTCCTTTGCTGATATTGGCAAGAAACAGTCAGAACCAATTCATGGACAAAAATGCAGG  
TCAGGTTGTTTCTCCTCAGTCTGCTCCAGCCTGTGTTGAAAATAAAAATGATGTTAGCAGAGAAAACAGC  
ACTGTTGACTTTAGCAAGGTTGATCTGCATTTTATGAAAAAGATTCTCCAGGTGCTGAAGCATCGAACA  
TCTTAGTGGGAGAACTGGAGTTCTTGGATCGAACAGTAGTTGCGTTTGTGAGTTGCTCCAGCTGTATT  
GCTTCAAGGACTGGCTGAAGTCCCAATCCCAACCAGATTTTTGTTTATTCTCTGGGACCCCTGGGAAAG  
GGTCAACAGTACCATGAGATTGGCAGATCAATTGCAACCCTAATGACAGATGAGGTATTTTCATGATGTTG  
CCTATAAAGCTAAAGATCGTAATGACTTGGTATCAGGAATTGATGAGTTTCTGGATCAGGTTACTGTTCT  
CCCTCCTGGAGAATGGGATCCAAGCATTGCAATAGAGCCTCCCAAAAATGTTCTTCCAGGAGAAGAGG  
AAGATTCCTGCTGTACCAAAATGGAACAGCAGCTCATGGGAAGCAGAGCCCCACGGAGGACATAGTGGAC  
CTGAATCCAGCGAACTGGAAGGATTTTTGGGGGACTTATTTAGATATCAAAGAAAAGCTCCATACTT  
CTGGAGTGACTTCAGAGATGCTTTCAGCCTGCAGTGCTTAGCATCTTTTCTATTCTACTGCGGTGT



[View online >](#)

ATGTCTCCTGTCATCACGTTTGGAGGACTGCTGGGAGAAGCAACTGAAGGGCGTATAAGTGCAATTGAAT  
 CTCTCTTTGGAGCATCCATGACCGGGATAGCCTATTCTCTCTTTGGTGGACAGCCTTTACCATATTAGG  
 CAGTACAGGACCAGTTTTGGTGTGTTGAAAAGATTTTGTAAATTTTGCAAAAGATATGGGCTGTCATAC  
 CTATCTTTAAGAGCTAGCATTGGACTTTGGACTGCAACTCTATGTATCATACTTTGGCCACAGATGCTA  
 GTTCCCTGTCTGCTACATCACTCGTTTACTGAAGAAGCTTTTGCTTCCCTGATTTGCATCATTTTCAT  
 TTATGAGGCCCTGGAGAAGTTGTTTGAAGTCACTGAGCATATCCAATCAACATGCATATGATCTGGAA  
 CTGCTGACACAATACTCGTGAAGTGTGGAACCCGCATATCCCAGCAATGGCACATTGAAGGAATGGA  
 GGGAAATCCAATATTTCTGCCTCTGACATAATTTGGGAGAACCTAACTGTGTCAGAATGCAAATCATTGCA  
 TGGAGAGTATGTTGGACGGCCCTGTGGCCATGATCACCCATATGTTCCAGATGTTCTATTTTGGTCTGTG  
 ATCCTGTTCTTTTCCACAGTTACTCTGTGAGCCACCCTGAAGCAGTTCAAGACTAGCAGATATTTTCCAA  
 CCAAGGTTTCGATCCATAGTGAGTGACTTTGCTGTCTTTCTTACAATTCTGTGTATGGTTTTAATTGACTA  
 TGCCATTGGGATCCCATCTCCAAAACACAAGTACCAAGTGTTCAGCCCACTAGAGATGATCGTGCC  
 TGGTTTGTACGCCTTTAGGTCCAAACCCATGGTGACAGTAATAGCTGCTATAATTCCAGCTCTGCTTT  
 GACTATTCTAATTTTTATGGACCAACAGATTACAGCTGTCATCATCAACAGGAAAGAGCATAAGCTAAA  
 GAAAGTTGTGGTACCATCTGGACCTATTAATGGTGGTGTGCTGCTCGGTGTATGCTCCATCATGGGC  
 CTGCCATGGTTTTGGTGGCCACAGTCCCTCCATCACTCATGTCAATAGCCTAAAAGTGAATCAGAAT  
 GCTCAGCTCCAGGAGAACAACCCAAATTTCTCGGCATTCCGGAGCAAAGGGTTACTGGGCTTATGATTTT  
 TATTCTTATGGGTTTATCAGTCTTTATGACCAGTATTCTGAAGTTTATTTCCCATGCCAGTGTATATGGA  
 GTGTTTCTTTATATGGGTGCTTCATCTCTAAAGGGAATTCAGTCTTTTGTAGGATAAAGCTCTTCTGGA  
 TGCCGGCAAAAACATCAACCAGATTTTATACCTAAGGCACGTACCGCTTCGAAAAGTGCATCTCTTAC  
 AATTATTCAGATGAGTTGCCTTGGCCTTTGTGGATAATAAAAGTTTCAAGAGCTGCTATTGTCTTTCC  
 ATGATGGTGTAGCCCTGGTATTTGTAAGAAAGTTGATGGACTTGTGTTTACGAAGCGGGAACACTCAGT  
 GGTGGATGATTTGATGCCCGAGAGTAAGAAAAGAACTGGAAGATGCTGAAAAAGAGAAGAACAAG  
 TATGCTAGCTATGGAAGATGAGGGCACAGTACAACCTCCATTGGAAGGGCACTATAGAGATGATCCATCT  
 GTGATCAATATCTGATGAAATGTCAAAGACTGCCTTGTGGAGAACCTTCTGATTACTGCCGATAACT  
 CAAAAGATAAGGAGTCAAGCTTTCTTCCAAAAGCTCCCTTCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG216112 representing NM\_022058  
 Red=Cloning site Green=Tags(s)

MEIKDQGAQMEPLLPTRNDEEAVVDRGGTRSILKTHFEKEDLEGHRTLFIGVHVPLGGRKSHRRHRHRGH  
 KHRKRDRERDSGLEDRSPSFDTPSQRVQFILGTEDDDEEHIPHDLFTELDEICWREGEDAEWRETARW  
 LKFEEDVEDGGERWSKPYVATLSLHSLFELRSCILNGTVLLDMHANTLEEIADMVLDQQVSSGQLNEDVR  
 HRVHEALMKQHHHQKQLTNRIPVRSFADIGKKQSEPNMSMDKNAGQVSPQSAPACVENKNDVSRENS  
 TVDFSKVDLHFMKKIPPGAEASNILVGELEFLDRTVAVFVRLSPAVLLQGLAEVIPTRFLFILLGPLGK  
 GQQYHEIGRSIATLMTDEVFHDVAYKAKDRNDLVSGIDEFLDQVTVLPGEWDPISIRIEPPKNVPSQEKR  
 KIPAVPNGTAAHGEAEPHGGHSGPELQRTGRIFGGLILDIKRKAPYFWSDFRDAFLQCLASFLFLYCAC  
 MSPVITFGGLLGEATEGRISAIESLFGASMTGIAYSLFGGQPLTILGSTGPVLVFEKILFKFKCEYGLSY  
 LSLRASIGLWTATLCIILVATDASSLVCIYITRTEEFASFILCIIIFIYEALEKLFELSEAYPINMHNDLE  
 LLTQYSCNCVEPHNPSNGTLKEWRESNISASDIWENLTVSECKSLHGEYVGRACGHDHPYVPDVLFWV  
 ILFFSTVTLSATLKQFKTSRYFPTKVRISVSDFAVFLTILCMVLIDYAIIGIPSPKLQVPSVFKPTRDRG  
 WFTVPLGPNPWWTVIAAIPALLCTILIFMDQQITAVIINRKEHKLKKGCGYHLDLLMVAVMLGVCSIMG  
 LPWFVAATVLSITHVNSLKLESECSAPGEQPKFLGIREQRTGLMIFILMGSSVFMTSILKFIIMPVLYG  
 VFLYMGASSLKGIQFDRIKLFWMPAKHQPDFIYLRHVPLRKHVHLFTIIQMSCLGLLWIIKVSRAAIVFP  
 MMVLALVFRKLMDLLFTKRELWLDDLMPESKSKKLEDAEKEEEQSMLEMEDEGTVQLPLEGHYRDDPS  
 VINISDEMSTALWRNLLITADNSKDKESSFPSKSSPS

TRTRPLE – GFP Tag – V

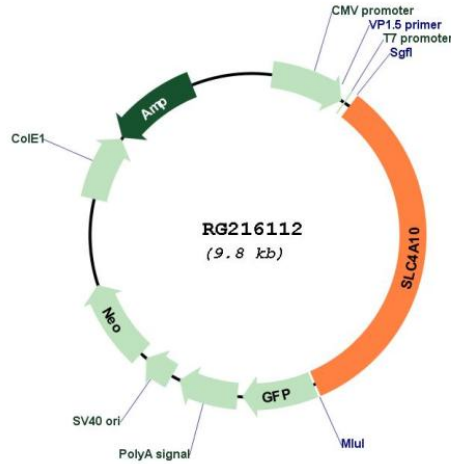
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_022058

ORF Size: 3264 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_022058.4</a></u>
<b>RefSeq Size:</b>	5580 bp
<b>RefSeq ORF:</b>	3267 bp
<b>Locus ID:</b>	57282
<b>UniProt ID:</b>	<u><a href="#">Q6U841</a></u>
<b>Cytogenetics:</b>	2q24.2
<b>Domains:</b>	HCO3_cotransp
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Gene Summary:</b>	This gene belongs to a small family of sodium-coupled bicarbonate transporters (NCBTs) that regulate the intracellular pH of neurons, the secretion of bicarbonate ions across the choroid plexus, and the pH of the brain extracellular fluid. The protein encoded by this gene was initially identified as a sodium-driven chloride bicarbonate exchanger (NCBE) though there is now evidence that its sodium/bicarbonate cotransport activity is independent of any chloride ion countertransport under physiological conditions. This gene is now classified as a member A10 of the SLC4 family of transmembrane solute carriers. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, May 2010]