

Product datasheet for **RG235229**

AE2 (SLC4A2) (NM_001199693) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: AE2 (SLC4A2) (NM_001199693) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: SLC4A2
Synonyms: AE2; BND3L; EPB3L1; HKB3; NBND3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG235229 representing NM_001199693
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGACTTCTCTCGCGCCTCAGCCAGAGCCAGAGAGCTTGGGCCCTGGGACGCCTGGGTTCCCCGAGC
 AGGAGGAAGACGAACTTCACCGCACCTGGGCGTGGAGCGGTTTGGAGAGATCTACAGGAGGCCGGGTC
 TCGTGGAGGGGAGGAGCCAGGCCGAGCTATGGGGAGGAAGACTTTGAGTACCACCGCCAGTCTCCAC
 CACATCCATCACCACTGTCCACCCACCTGCCTCCGGATGCACCGCCGCAAGACACCCAGGGCCAG
 GACGGAAGCCTCGAAGGCGCCCGGAGCCTCCCGACTGGAGAAACCCGACCATTGAGGAGGGGGAGGA
 AGATGAGGATGAGGCCAGCGAGGCTGAGGGGGCCCGGCTCTCACTCAGCCGTCCCTGTCTCCACACC
 TCCTCGGTGCAGTTCTTTCTCCAAGAGGATGACAGTGCTGACCGGAAGGCAGAGAGGACCAGTCCATCTT
 CCCCTGCACCACTGCCACCAGGAGGCGACTCCTCGGGCCTCCAAGGGGCCAGGCTGGAACCCAGGT
 GGAGGAGGCGGAGGCGGAGGCGGTGGCGGTGGCCAGTGGCACTGCAGGGGGTGCAGCAGGGGGTGCCTCG
 GGGCGCCCTGCCAAAGCCAGCCTGGGCACCGCAGCTACAACCTTCAGGAGAGGAGGCGCATCGGGA
 GCATGACTGGGGCTGAGCAGGCACTGCTGCCCGGGTCCCACGGATGAGATTGAGGCCAGACGCTGGC
 CACGGCCGACCTAGACCTCATGAAGAGTCACCGGTTTGGAGACGTTCTGGGGTGCAGCGCACTTGGTG
 CGGAAGAATGCCAAAGGTTCCACACAGAGTGGCCGAGAAGGGCGGAGCCTGGCCCCACCTCGGGCC
 GACCCCGGGCCCCACAAGCCCATGAGGTGTTTGTGGAGCTGAATGAGTTGCTCCTGGACAAAACCA
 GGAGCCCCAGTGCGGGAGACAGCTCGTGGATCAAATTTGAAGAGGACGTGGAGGAGGAGACTGAGCGC
 TGGGGGAAGCCCCACGTGGCCTCCTCTCCTTCCGCACTCCTGGAGCTCCGCAGGACCCTGGCCATG
 GGGCTGTGCTCTGGATCTGGACCAGCAGACCCTGCCCGAGTGGCCACCAGGTGGTGGAGCAGATGGT
 CATCTCTGACCAGATCAAGGCCGAGGACAGGGCCAACGTGCTGCGGGCTCTGCTGTTGAAACACAGCCAC
 CCAAGTGTGAGAAGGACTTCTCCTTCCCCGCAACATCTCAGCTGGCTCCCTGGGCTCCTGCTGGGGC
 ATCACCATGGTCAGGGGGCTGAGAGTGACCCACGTCACCGAGCCTCTCATGGAGGTGTTCTGAGAC
 CCGGCTGGAGGTGAGCGAGAGCGTGAGCTGCCGCTCCAGCACCACCAGCTGGCATCACCCGCTCAAAG



TCCAAGCACGAGCTGAAACTGCTGGAGAAGATTCTGAGAATGCCGAGGCCACGGTGGCTCTTGTGGGCT
CGGTGGAGTTCCTCTCCCGCCCCACCATGGCCTTTGTGCGGCTCCGGGAGGCTGTGGAGTTGGACGCAGT
GTTGGAGGTGCCGGTGCCTGTGCGTTTCTCTTCTGCTGCTGGGCCGAGTAGTGCCAACATGGACTAC
CACGAGATCGGCCGCTCCATCTCCACCCATCATGTACAGACAAGCAATTCACGAGGCAGCCTACCTGGCTG
ACGAGCGGGAGGACCTGCTGACGGCCATCAACGCCTTCTGGACTGCAGCGTGGTGTCTGCCGCTTCAGA
AGTGCAGGGCGAGGAGCTGCTGCGCTCTGTGCCCACTCCAGCGCCAGATGCTCAAGAAGCGAGAGGAG
CAGGGCCGGCTGCTACCTACAGGGGCTGGGCTGGAGCCAAATCTGCCAAGATAAGGCGCTCCTGCAGA
TGGTAGAGGCGGCAGGGCAGCTGAAGATGATCCCTTCGGCGGACGGGGCGGCCCTTTGGGGGGCTGAT
CCGAGATGTGCGGCGCCGCTATCCCACTACCTGAGTGACTTCCGAGATGCACTTGACCCTCAGTGCCTG
GCCGAGTCATCTTACTTCTACTTTGCCGCCCTGTCTCTGCCATCACCTTTGGGGGGCTGCTGGGAGAGA
AGACGCAGGACCTGATAGGGGTGTCGGAGCTGATTATGTCACAGCGCTCCAGGGCGTGGTCTTCTGCCCT
GCTGGGTGCCAGCCCTGTTGGTATCGGCTTCTCAGGGCCCTGCTGGTCTTTGAGGAGGCTTCTTC
TCGTTCTGTAGCAGCAACCACCTGGAGTACCTGGTGGGCCGTGTGGATCGGCTTCTGGCTGGTGTTC
TGGCCCTGCTCATGGTGGCCCTGGAGGGGAGCTTCTGGTCCGCTTCGTCTCCGCTTACCAGGAGAT
CTTCGCTTCTTGATCTCACTCATCTTCTATGAGACCTTCTACAAGCTGGTGAAGATCTTCCAGGAG
CACCCCTGCATGGCTGCTCAGCCTCCAACAGCTCAGAGGTGGACGGCGGTGAGAACATGACATGGGCCG
GGCAAGACCCACGCTGGGGCCGGCAACAGGAGCTTGGCTGGGCACTTGGGCAGGGAAGCCCGGGG
CCAGCCCAACACGGCCCTGCTGTGCTGGTGTCTATGGCCGGCACCTTCTTATCGCCTTCTTCTGCGC
AAATTCAGAAGACGCCGTTCTTCTGGCCGGATCCGGCGGGTATTGGGGACTTTGGGGTGCCATCG
CCATCCTCATCATGGTGTGTTGGATTACAGTATTGAGGACACCTATACCCAGAAGCTGAGCGTTCCCAG
TGGATTCTCGGTACTGCCCCAGAAAAGAGGGGCTGGGTATCAACCCCTGGGAGAGAAGAGCCCTTC
CCTGTGGATGATGGTTGCCAGCCTGCTGCCGCCATCCTGGTCTTATTCTCATCTTCTCATGGAGACAC
AGATACCACGCTCATCATCTCCAAGAAGGAGCGCATGCTGCAGAAGGGCTCCGGCTTCCACCTGGACCT
GCTGCTCATCGTGCCATGGGCGGCATCTGTGCCCTTTTGGCCTGCCCTGGTTGGCTGCTGCCACTGTC
CGCTCTGTCACTACGCCAACCGCTCACTGTCTGAGCAAGGCTGTGGCACCTGGGGACAAGCCCAAGA
TTCAGGAAGTCAAGGAGCAGCGGTGACGGGGCTGCTGGTTGCCCTGCTTGTGGGCTCTCCATAGTTAT
CGGGGATCTGCTCCGGCAGATCCCCTGGCCGTGCTCTTGGAAATTTCTGTACATGGGAGTCACTCC
CTTAACGGGATCCAGTTCTATGAGCGGCTGCATCTGCTGCTCATGCCGCCAAACACCACCAGATGTCA
CTTACGTAAGAAGTCCGGACCCTCCGTATGCACCTGTTACGGCCCTGCAGTGTCTGCCTGGCCCT
GCTCTGGGCCGTATGTCCACAGCTGCCTCCCTGGCCTCCCCTTCATCCTCATCCTCACAGTGGCCCT
CGCATGGTGGTGTACCCGTATCTTACCAGCCGAGAGATGAAATGTCTGGATGCTAACGAGGCAGAGC
CGGTGTTGATGAGCGGGAGGGTGTGGACGAGTACAATGAGATGCCCATGCCTGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAA

Protein Sequence: >RG235229 representing NM_001199693
 Red=Cloning site Green=Tags(s)

```

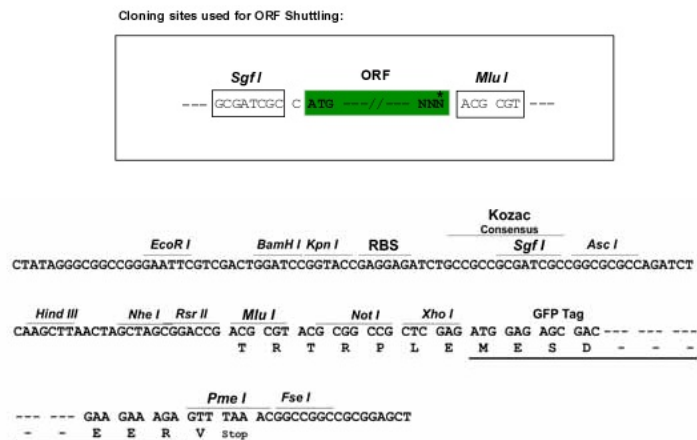
MDFLLRPQPEPESLGPGTGPFPPEQEDELHRTLGVVERFEEILQEAGSRGGEEPGRSYGEEDFEYHRQSSH
HIHHLSTHLPPDARRRTPQGPRKPRRRPGASPTGETPTIEEGEEDDEASEAEGARALTQPSPVSTP
SSVQFFLQEDDSADRKAERTSPSSPAPLPHQEATPRASKGAQAGTVQEEAEAEAVAVASGTAGDGGAS
GRPLPKAQPGHRSYNLQERRRIGSMTGAEQALLPRVPTDEIEAQLTADLADLDMKSHRFEDVPGVRRHLV
RKNAGKSTQSGREGREPPTPRARPRAPHKPHEVFVFNELLLDKNQEPQWRETARWIKFEEDVEEETER
WGKPHVASLSFRSLELRRLAHGAVLLDLQQTLPVVAHQVVEQMVISDQIKAEDRANVLRALLKSHS
PSDEKDFSFPRNISAGSLGSLGHGHHGQGAESDPHVTEPLMGGVPETRLVERERELPPPAPPAGITRSK
SKHELKLEKIPENAEATVVLVGCVEFLSRPTMAFVRLREAVELDAVLEVPVPRFLFLLGPSSANMDY
HEIGRSISTLMSDKQFHEAAYLADEREDLLTAINAFDLSVLPSEVQGEELLRSVAHFQRMLKKREE
QGRLLPTGAGLEPKSAQDKALLQMVAAAGAAEDDPLRRTGRPFGLIRDVRRRYPHYLSDFRDALDPQCL
AAVIFIYFAALSPAITFGLLGEKTQDLIGVSELIMSTALQGVVFCLLGAQPLLVIQFSGPLLVFEEAFF
SFCSSNHLEYLVGRVWIGFWLVFLALLMVALEGSFLVRFVSRFTQEIFAFLISLIFYETFYKLVKIFQE
HPLHGCSASNSSEVDGGENMTWAGARPTLPGNRSLAGQSGQKPRGQPNNTALLSLVLMAGTFFIAFFLR
KFKNSRFPPGRIRRVIGDFGVPIAILIMVLVDYSIEDTYTQKLSVPSGFVTAPEKRGWINPLGEKSPF
PVMMVASLLPAILVFIIFMETQITTLIISSKERMQLKQSGFHLDLLIVAMGGICALFGLPWLAAATV
RSVTHANALTMKAVAPGDKPKIQEVKEQRTVGLLVALLVGLSIVIGDLLRQIPLAVLFGIFLYMGVTS
LNGIQFYERLHLLMPPKHHPDVTVYVKKVRTLRMHLFTALQLLCLALLWAVMSTAASLAFPFILILTVPL
RMVVLTRIFTDREMKCLDANEAEVDFDEREGVDEYNEMPMV
  
```

TRTRPLE - GFP Tag - V

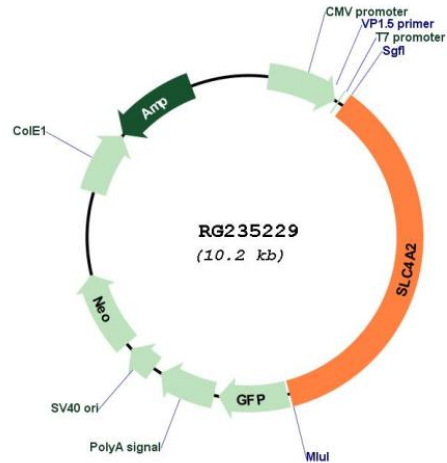
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001199693

ORF Size: 3696 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_001199693.1](#), [NP_001186622.1](#)

RefSeq Size: 3969 bp

RefSeq ORF: 3699 bp

Locus ID: 6522

UniProt ID: [P04920](#)

Cytogenetics: 7q36.1

Protein Families: Transmembrane

Gene Summary: This gene encodes a member of the anion exchanger family of membrane transport proteins. The encoded protein regulates intracellular pH, biliary bicarbonate secretion, and chloride uptake. Reduced expression of this gene may be associated with primary biliary cirrhosis (PBC) in human patients, while differential expression of this gene may be associated with malignant hepatocellular carcinoma, colon and gastric cancers. [provided by RefSeq, Nov 2016]