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Product datasheet for MG200768

Ap2s1 (NM_198613) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ap2s1 (NM_198613) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ap2s1
Synonyms:	AI043088
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG200768 representing NM_198613
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATCCGATTCATCCTTATCCAGTGGTACATGCAGTTCGATGACGACGAGAAGCAGAAGCTGATCGAGG
AGGTGCACGCCGTGGTCACCGTCAGGGATGCCAAGCACACCAACTTTGTGGAGTTCCGGAACTTCAAGAT
CATCTACCGACGCTACGCTGGCCTCTACTTCTGCATCTGCGTGGATGTCAACGACAACAATCTGGCCTAT
CTCGAGGCCATCCACAACTTCGTAGAAGTGTTAAATGAATACTTCCACAATGTCTGTGAACTGGACCTGG
TGTTCAACTTCTACAAGGTTTACACGGTGGTAGATGAGATGTTCCTGGCAGGAGAGATCCGAGAGACCAG
CCAGACGAAGGTGCTGAAGCAGCTGCTGATGCTGCAGTCCCTGGAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG200768 representing NM_198613
Red=Cloning site Green=Tags(s)

MIRFILIQWYMQFDDDEKQKLIEEVHAVVTVRDAKHTNFVEFRNFKIIYRRYAGLYFCICVDVNDNNLAY
LEAIHNFVEVLNEYFHNVCELDLVFNFYKVYTVVDEMFLAGEIRETSQTKVLKQLLMLQSLE

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

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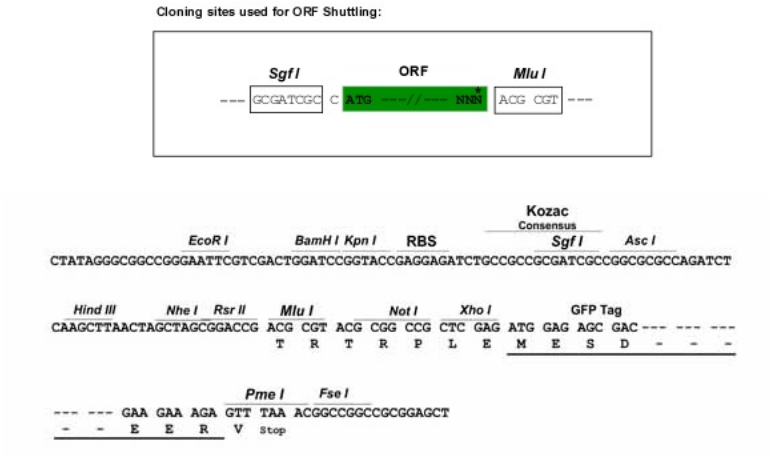
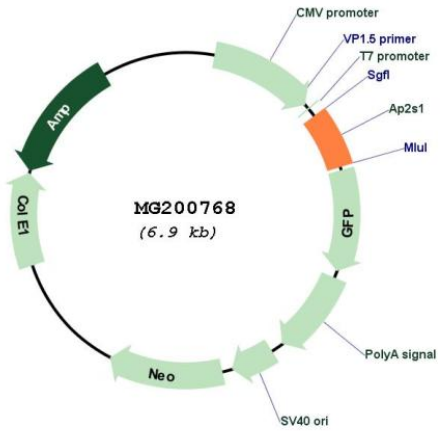
Cloning Scheme:



Plasmid Map:



ACCN: NM_198613

ORF Size: 396 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_198613.1, NP_941015.1
RefSeq Size:	829 bp
RefSeq ORF:	429 bp
Locus ID:	232910
UniProt ID:	P62743
Cytogenetics:	7 A2
Gene Summary:	Component of the adaptor protein complex 2 (AP-2). Adaptor protein complexes function in protein transport via Transport vesicles in different membrane traffic pathways. Adaptor protein complexes are vesicle coat components and appear to be involved in cargo selection and vesicle formation. AP-2 is involved in clathrin-dependent endocytosis in which cargo proteins are incorporated into vesicles surrounded by clathrin (clathrin-coated vesicles, CCVs) which are destined for fusion with the early endosome. The clathrin lattice serves as a mechanical scaffold but is itself unable to bind directly to membrane components. Clathrin-associated adaptor protein (AP) complexes which can bind directly to both the clathrin lattice and to the lipid and protein components of membranes are considered to be the major clathrin adaptors contributing the CCV formation. AP-2 also serves as a cargo receptor to selectively sort the membrane proteins involved in receptor-mediated endocytosis. AP-2 seems to play a role in the recycling of synaptic vesicle membranes from the presynaptic surface. AP-2 recognizes Y-X-X-[FILMV] (Y-X-X-Phi) and [ED]-X-X-X-L-[LI] endocytosis signal motifs within the cytosolic tails of transmembrane cargo molecules. AP-2 may also play a role in maintaining normal post-endocytic trafficking through the ARF6-regulated, non-clathrin pathway. The AP-2 alpha and AP-2 sigma subunits are thought to contribute to the recognition of the [ED]-X-X-X-L-[LI] motif. May also play a role in extracellular calcium homeostasis (By similarity).[UniProtKB/Swiss-Prot Function]