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Product datasheet for MR211254

Ap2a2 (NM_007459) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ap2a2 (NM_007459) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ap2a2
Synonyms:	2410074K14Rik; Adtab; AF006990; AW146353; C78001; L25
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>MR211254 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCGGCCGTATCCAAGGGGGACGGGATGCGAGGCCTAGCGGTCTTCATCTCCGACATCCGCAACTGTA
AAAGTAAAGAAGCTGAAATAAAGAGAATAAACAAAGAACTGGCAAATATTAGATCCAAATTTAAAGGTGA
CAACGCTCTTGATGGCTACAGTAAAAAGAAGTATGTCTGCAAATTGCTCTTCATCTTTCTCCTTGGTCAT
GACATTGACTTTGGACACATGGAAGCTGTGAATCTTCTGAGCTCAAACAGATACACGGAAAAGCAGATTG
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GAATGACCTGGCCAGCCGCAATCCTACGTTTATGGGTCTCGCCCTGCACTGCATTGCCAATGTGGGTAGC
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TGAAGCAGAGCGCAGCCCTGTGCTTGTTACGCCTGTACAGGACATCACCTGACCTAGTTCCCATGGGCGA
CTGGACATCTCGTGTGGTACACCTCCTCAATGACCAGCACTTGGGGGTAGTGACTGCAGCGACTAGCCTC
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GCAGGATTGTGACGTCTGCATCAACAGATCTTCAGGATTATACTTACTACTTTGTCCCGGCTCCTTGGCT
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CAAGCTCAGATGTATAGACTCACCTTGCGTACCAGCAAAGACACCGTCTCTCAGAGACTATGTGAATTGC
TGTCGGAACAGTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR211254 protein sequence
Red=Cloning site Green=Tags(s)

MPAVSKGDGMRGLAVFISDIRNCKSKEAEIKRINKELANIRSKFKGDNALDGYSKKKYVCKLLFIFLLGH
DIDFGHMEAVNLLSSNRYTEKQIGYLFISVLVNSNSELIRLINNAIKNDLASRNPTFMGLALHCIANVGS
REMAEAFAGEIPKILVAGDTMDSVKQSAALCLLRLYRTSPDLVPMGDWTSRVVHLLNDQHLGVVTAATSL
ITTLAQKNPEEFKTSVSLAVSRLSRIVTSASTDLQDYTYYFVPAPWLSVKLLRLLQCYPPPDPAVRGRLT
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SMCTLASSEFSHEAVKTHIETVINALKTERDVSVRQRAVDLLYAMCDRSNAQQIVAEMLSYLETADYSIR
EEIVLKVAILAEKYAVDYTWYVDTILNLIRIAGDYVSEEVWYRVIQIVINRDDVQGYAAKTVFEALQAPA
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KPVDPTVDGGAQVQQVVNIECISDFTEAPVLNIQFRYGGTFQNVSVKLPITLNKFFQPTEMASQDFFQRW
KQLSNPQQEVQNIFKAKHPMDTEITKAKIIGFGSALLEEVDPNPANFVGAGIIHTKTTQIGCLLRLEPNL
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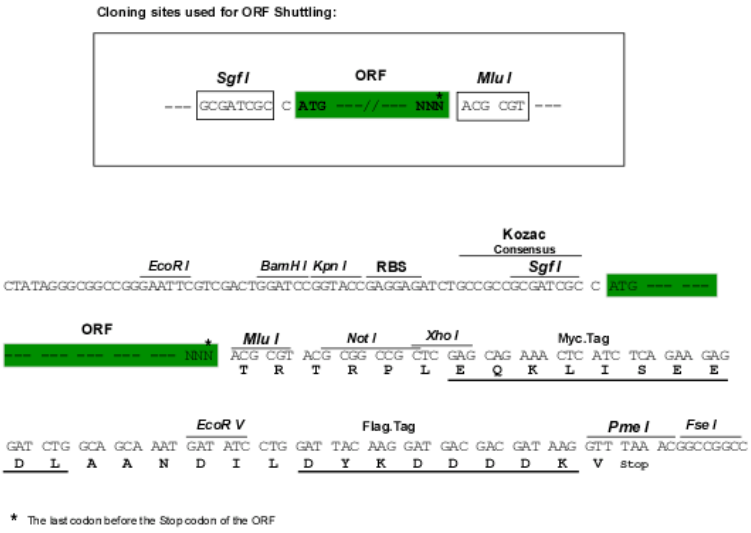
Restriction Sites: SgfI-MluI

Cloning Scheme:



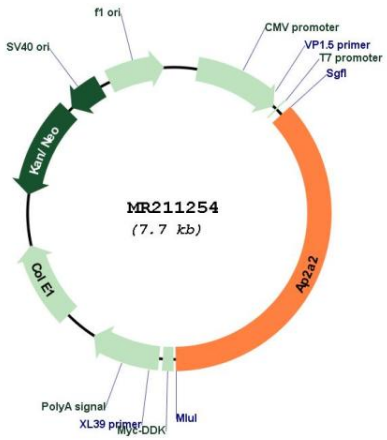
ACCN: NM_007459

ORF Size: 2817 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_007459.2, NP_031485.2
RefSeq Size:	4639 bp
RefSeq ORF:	2817 bp
Locus ID:	11772
UniProt ID:	P17427
Cytogenetics:	7 F5
MW:	104 kDa

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 subunit binds polyphosphoinositide-containing lipids, positioning AP-2 on the membrane. The AP-2 alpha subunit acts via its C-terminal appendage domain as a scaffolding platform for endocytic accessory proteins. 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. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR211254