

Product datasheet for **MG216130**

Ap4e1 (NM_175550) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ap4e1 (NM_175550) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ap4e1
Synonyms:	2310033A20Rik; 9930028M04Rik; AV087807
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG216130 representing NM_175550 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCGACATGGTGGAGAGGACGCTGACCGCACTGCCGGGGCTCTTCTGCAGAACAGCTGGGAGGAC
CTGCGGCTCCAGAGCACCTTCTTCTCCAGGCTGGGCGGCTCATCCGTGGCGTCACTGCACTCTCATC
CAAGCACGAAGAAGAGAAATTAATCCAGCAGGAAGTGAAGTCTGAAGGCAACTGTTTCTGCTCCGACC
ACGACACTGAAAACGATGAAGGAATGTATGGTGAAGTATATACTGTGAGATGCTTGGATACGATGCTT
CTTTTGGTTATATACATGCAATCAAGTTGGCCCAACAAGGAAACCTTTAGAAAAAGAGTGGGTTATTT
GGCTGTTTCTTTATTTCTACATGAAAGTCACTGAACTTTTCTTCTCCTTGTGAATACAGTGGTAAAGGAC
CTGCAGAGCACTAATCTGGTAGAAGTATGTATGGCACTTACTGTTGTCAGCCAGATTTTCCCTCGAGAAA
TGATTCAGCCGTTCTTCCACTAATAGAAGATAAACTTCAACATCTAAGGAGATTATACGAAGAAAAGC
AGTTCTGGCATTATACAAATTTTACCTCATTGCCCAATCAAGTACAGCACATCCACACTAAATTTTCGG
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AAAATGCTTCTGGCTATAAAGACTTGACGGAGAGTTTTGTAACAATTTTAAAGCAGGTGGTGGCGGGAA
GCTCCCGGTAGAGTTCAGTTACCACAGCGTGCCAGCACCATGGTTACAGATTCAGCTCCTGAGAATACTG
GGACTGCTGGGAAAGACGATGAAAGGACAAGTGAATTAATGTATGATGTTCTTGATGAATCCTTACGAA
GAGCCGAGTTAAATCACAAATGCACTTACGCTATTCTGTTTGAATGTGTACACACAATCTATTCTATTTA
TCTAAGTCAGAATTACTTGAGAAGGCTGCCAAGTGCATTGGAATAATTTGTTCTGTACCTAAAATAAAC
CTCAAATATTTAGGACTGAAGGCTCTTACCTATGTTATCCAGCAGGATCCTTCTGCTTCAACACC
AGATAACCATAATTGAATGCCTAGACCACCCTGATCCCATTATTTAAAGAGAGACTCTGGAATCTTTTA
CAGAATTACAAATGCACAGAATGTAGTGGTTATTGTACAGAAAATGCTTGAATACTTACATCAGAGCAAA
GAAGAGCATATCATCATCAGTTTAGTTGGCAGAATTGCTGAGCTGGCTGAGAAAATGCTCCTGACAACG
TGTGGTTTATTACAGACAATGAATGCTGTGTTTTAGTGGGAGGAGATGTAATGCATCCAGATATTCTCAG
CAACTTCTGAGACTGCTAGCAGAAGGTTTTGATGATGAAACAGAAGATCAACAATTAAGACTCTACGCA



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G TTCAGTCTTATCTTACTTTACTAGATATGGAAAATACTTTCTATCCACAGAGATTTCTTCAAGTTATGA
 GTTGGGTGTTAGGAGAGTACTCCTACCTCTTAGATAAAGAAAAGTCCAGAGGAGGTATAACCAGGCTCTA
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 ACTTCTGTCTAACAGAGCTGCAGCAGAACCTGAGACTTCGTGTGATTGACGTATAGGCAATGAAGGGC
 GTTGGCCTGTAAGCTGCTCCCATCCACCCCTGTGTGCTGCACTGCCGAGTACATGCTGACGCGGTAGC
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 ACATCC

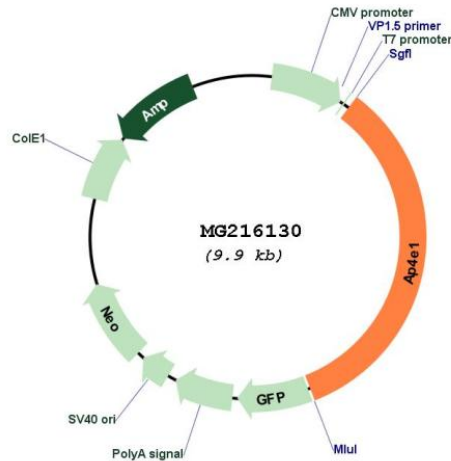
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG216130 representing NM_175550
 Red=Cloning site Green=Tags(s)

MSDMVERTLTALPGLFLQNQLGGPAASRAPFFSRLGGLIRGVTALSSKHEEEKLIQQELSSLKATVSAPT
 TTLKTMKECMVRLIYCEMLGYDASFGYIHAIKLAQQGNLLEKRVGYLAVSLFLHESHELLLLLNTVVKD
 LQSTNLVEVCMALTVVSQIFPREMIPAVLPLIEDKLQHSKEIIRKAVLALYKFYLIAPNQVQHIHTKFR
 KALCDRVDVGVMAASLHIYLRMIKENASGYKDLTESFVTILKQVVGKLPVEFSYHSVPAPWLQIQLLRIL
 GLLGKDDERTSELMYDVLDESLRRAELNHNVTYAILFECVHTIYSIYPKSELLEKAAKCIKGFVLSPKIN
 LKYLGLKALTYVIQQDPSLALQHQITIIIECLDHPDPIIKRETLELLYRITNAQNVVIVQKMLEYLHQSK
 EEHIIISLVGRIAEAEKYAPDNVWFIQTMNAVFSVGGDVMHPDILSNFLRLLAEGFDDEDEDQQLRLYA
 VQSYLTLLDMENTFYQPQRFQVMSWVLGEYSYLLDKESPEEVITRLYKLLMSDSISSETKAWLFAAVTKL
 TPQAHSSPLVEKLIQEFVSLNCLRQHAFELKHLHENTELMKSLLQGAQNCEIIVADASLSFLDGFVAE
 GLSQAAPYKPHHQREEQLSQEKVLFNFEYGLSFSSSGFTGRQSPAGISLGSISGNSAETGLKETSSL
 KMEGIKLLWGKEGYLPKKESGTGDKPEASHVPAEGATVENVDQATTRKDQAQGHIPSTEEKEKQLLASSL
 FVGLGPENTVDLLGKADVSHKFRRKSKLKVQSDKTPSAPTAPCSALSLGSDVAGGDEDGLSAVDRDGG
 ELSSELFRSESLSGPPSAEKLESVSLPVPSLFADNNMEVFNPPSSSATSTVKEETPECRHSGLVEICSNE
 AVSYSSYKVRDCLLVIWAVTSKTDSEFTDAQLEIFPVENFKIIEQPECSSPVIETERTKFSQYSVQME
 SPCIEGTLSGFIKYQMMDTHSVQLEFSMNLPLLDLIRPLKISTEDFGKLWLSFANDVKQTIKISEPGVAL
 TSVLTELQNLRLRVIDVIGNEGLLACKLLPSTPCVLHCRVHADAVALWFRSSSVLSDYLSCHCQKVMQ
 TS

TRTRPLE - GFP Tag - V

Plasmid Map:


ACCN: NM_175550

ORF Size: 3366 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_175550.3](#), [NP_780759.2](#)

RefSeq Size: 6524 bp

RefSeq ORF: 3369 bp

Locus ID: 108011

UniProt ID: [Q80V94](#)

Cytogenetics: 2 61.76 cM

Gene Summary:

Component of the adaptor protein complex 4 (AP-4). Adaptor protein complexes are vesicle coat components involved both in vesicle formation and cargo selection. They control the vesicular transport of proteins in different trafficking pathways. AP-4 forms a non clathrin-associated coat on vesicles departing the trans-Golgi network (TGN) and may be involved in the targeting of proteins from the trans-Golgi network (TGN) to the endosomal-lysosomal system. It is also involved in protein sorting to the basolateral membrane in epithelial cells and the proper asymmetric localization of somatodendritic proteins in neurons. AP-4 is involved in the recognition and binding of tyrosine-based sorting signals found in the cytoplasmic part of cargos, but may also recognize other types of sorting signal. [UniProtKB/Swiss-Prot Function]