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Product datasheet for MC224410

Akna (NM_001045514) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Akna (NM_001045514) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Akna
Synonyms:	AI597013
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

Fully Sequenced ORF:

>MC224410 representing NM_001045514
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAGCTCAGGGGCAAAGGCACAATGGGTTGGGCCAAGCCTGGGGCAAGGGCCCCGAAGGCGGCGCT
GGGCTTGGGCTGAGGAACAAGATACAGATGGAAGAAGAGACCAGGGCTGGGGAAACAGCCAGTCTCTTCC
CGAAGCCCCCAGTCCTGAGCTCCTAGAGGACTTCCGTCGGGCACAGGAGCACCTGCCACCCCTGGAGTGG
GACCCAGACATGCAGGACTCCGAAGAGTCTTCTGGAGAAGAGACCGAAGCTGACGATGCAAGCAGCCCAG
AGGGTTCCACCGTGCCTCTGCCCTGGCTCTCCAGGAGCAACCAACAGCTGGACATGTCTGAAGAGGAGCT
GGATGAGGCCTCTGGGAGGCCTGAGGTAGACTTAGCTGGAGAGAGTTGTACGGAGCTTGAGTGTGAAGAC
CAGGGAGATTCCAGCCCTCCACCTCCAGGACAGGGGCCAGCCAAAGGCTGGGTCACCTTTATCAAACAAG
GCAGTAACTACAGACCTTCAGAGCATCTCGAGGCCCAGCCATCTGTTGAACATAGCCGCACAAAGTCTTG
GAGCAGTGGAACTGTGAGCCTCCGTCAACCTAGTGACAGCCTTGGTTCTACCTGGGAAGGAGATACCGAA
GTCCCTCAGCCTTCCATCTTGCCCAAAGCCCTGCCACAGAGTCCGTGCCACAACTTTCCACACCCAGGTG
ACAGAAATGGAGGTGACGTTGCTCCGGCAACACCCACAGAATTCCGGGACTCCTTAGCAGCGCCAGCCCA
GAATGCCGAGTGCTCTGCAGGCACGTGGGGGGAAGAAACCACCAGCCTACCCAGCTCTCGGCCTGAGGAC
CAAACCTGGAAGAGGACTAAGACATCACCTAAGCCACTGCCCTCCCGGTTTACTGGTTCTGTCAGCCCCC
TGAGTACTCGGCTTGGGGCAATAAAGAAAGTTGTGCCCCAGCACAAGCAGGGAGCCACTCTGGCTGGTCA
CTCTTCTTCACAAGCTCCCAAGTATGGCAGGGGGCGCCGCCTGAACTACCCACTCCCCGACTTCTCCAAG
GTGGGGCCCCGGGTGAGGTTTCCCAAAGATGAGAACTACCGACCCCCGAAGTCCAGAGGCCACAACAGGC
AACAAGGCTCTACCAGACCCCTCATCTTCAAGTCGCCAGCTGAGATTGTTCGGGATGTACTGTTGAGTAG
TGGAGAGGCGTCCCTGGCCAAGGAATCTTCTCTTGCTCACACCATCACCAGGGTGCCCCAGGAGTTCCAG
ACACCCGAACAAGCCACTGAGCTAGTTCATCAGCTCCAGGAGGACTATCACAAGCTCCTCACCAAGTATG
CGGAGGCTGAGAACACTATCGACCAACTTCGCCTTGGGGCCAAGGTGCACCTGTATTCAGACCCACCACA
GCCCAGTCAGAGCTTCTGCTCGGGGTCAATGCCACAAGGAAGCAAGGTCTTATCCTTCTCTATCCCGCAA
CCCAGAGTAGCAGAGTGGTGGCCTGACCCTGCCCAGGATCCACAGGCCTCTGAGGCCACAGGGTGGCCGT

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TCCCACGAACAGACCTGAGTCCCTCCTCGTCCCCCGGCGTGGCCACTCCAGGGCGGCTTCCTCAGAGCCA
GGGCATTGCCACAGACCAGCCCTCCACAGGACAGACCCAGGCACTGACCTCTCAGGCCAGCCGGCTCCTG
GCCAAGGTGCAGTCCTTCGAGGAACTGGTACTGGCTGGACACCTCCCACCTCAGGACCAAATCAAGAGCT
TGGAGCAACTGAGGGCAGCCCACATGGCCCTAGAGGCAGAGTACCTGCAGGCCTGCAGAGAAGAGCTCCT
GGACCCTCAGCTTGATGCCTCTCAGGGGAGTCCCAGGACCCTCAACCTCTGCAGGGAGCTAGAAGCAGAG
ATATACCACCTGGGACAGCGCCTGGAAGAGCTACAGGACCATATGGACCAGACCCAAAGAGAGACAGAGC
CATGTAGGCCAGACCTGCAAGACAGCACCCCAACCATGTCCTTTCTGCCCCAGTCAGCTCATCTGTCCAT
GCCTTCAGGACCTGTCTCCTTGCCAGATGGCCAAACCTACCAGGAGCCTGCCACCACCACCACCACCTCC
CCTGGAAGCTCTTGCACGCTCCCCATCAACAAGAAGTTAAGCCTGAGCATCAAAACTGAGGAAAGCCCAA
GAGGTCTCCCGGTCCCACTCAGGGACAGGACGCTTCAGGTGGAGCAGGACTTCCATGGCCTTCTGGAGAG
ATACCTCAGCGTTAAATCCCTCCCTGAAGCCTTGAGGGATGAAGATGAGGATGACCTGGAGGAGGAGGAA
GAGGAGCAGGACCATCAAGGCCCCTTGGAAGTTGATAGTCCAGCCACAGCTCCAGGGAAAACAGAAGCCG
TGAGGGTACCACCAGGAGAGCGCCCAACACAGGCTGAGGAAAGCCATAGGGATGCTACCCAGGAGGATGA
GGAACAGATGGGACCTATGAAGTCACCAGACTTCCGGCCATCCATGGCCAGAGATACGTACACACCAGTC
CTGGATACAGCTGAAGTGGCTCAACGGGGCACCAAAGCCATGGTGTCACATCAGAGCAGTCTGACCAGCC
TGGAAGAGAGCAGGCCCTCAGAGCTCCTTCCTCGAAAAGCCCTGCTTCGGGCTGGTGGGCCCCACACTGA
GGAGCCCTGGATGGTGTCACCAGAGACAGACAGTGGCTTCGTGGGCTCAGAAACCAGTATAGTGTCACCC
TTCACCCAGACCCCAGAGCACCGGCTCTCCCATGTCAGCACTTCAGGACCATCAGCTCAACACCTCACTG
CCTCTGTGCCTGGTGATAGAACCTCCCATCCCAAGGCCAGGGGTCTCATGGTTCCCAGAAGAGCCACTGA
GACTGGCATACCCAGAAGCCGAACCCAGCAGCATTTCTCCAGCCTGAGCTCTCCCGGGAGAGGGGCACAG
AGCTGCCACCTAGAGGAGACATCAGTGGCTAAAATAGCGGTTCCCAGGTCTGAGTTCAAGAGACAGAAGC
AGATTTCCAAACAGCTCCTTCCCAGTGGAAGAACCAGCCCCGACTCTGCCCCAGCTCCCACAGCTGCCTC
CACGCCCCATGGATCAGCAGAGAGCACTGCCAACCTCCTCCTCAACAGGACAGAGCGCGACCAGGCCATC
AAGGATCTGCAGGCGGAGGTGTCACGGCTCCGCCTTCAACTGGAGGACAGCCTGCACCGGCCACACCCAG
ACGGCCCAGCCTGTGTAGCTTCTGCTTTCAACCACTCCACCCAGACCCAGGAAAAGCTGGGTTCCTCACC
CTCCTGGGGCCCCCACTATGGCAGTAAATCCACAGAGAGGCTGTCTAGGGAGCCTAATGGTGTAGAGCCA
GCTGAGCCAATGGGAAGACGTCGAGCCAGGTCCTCTTCGGTGCCTCGGGATGTACCCAGACTGTACCTAA
GTTCTGAATCGGAGTCGCCTGCCCCTCGGCTCTCATCTGAGAAGAGCAGGACCTTTGAGGAGCACCCCGA
GGCTGCACAGTGGGGGACAAGACCACAGAGCAGCTCGAAGCGGAGGGAAAGAGTTTCCTTCCGGGGTCAA
TACACAGGCCAGGAGTACCACATTCTATCCCCAAAGGCCATCCTGAAGGACAGTGGCACACCGTCCTGTC
CCCACTGCCATCCCATTAGGACCCAGGACACAGGCAGTGCTGTCTCTAGAGACACCACACGGGGCTCATC
TGCCGCTGACACCCTCCGCTGTGCCCTGTGTGGTGAAGTCAAGTCCTCTGCAGAAGCAGATGGCTCCAGC
TCAGGTCCCTCTGAGAAGAACACCCCCAAAAAGCCTTCCACCCCCATCCTCAAACGGAAGAACAGGCAGA
CGGGCTCGCCAGTACGAATGGCCCCTGGACTCTGGTACCTGGCTGCTGCGCCCCCAGCCCCAGCCCCACC
GGCTTTGGCCTACATCTCCTCAGCTCCCATTATGCCTTATCTACCACCCACTGTGTACTATGCAGCCCCA
GCACCTACCTCAGCCCAGACAGCTTCCCCGCAGCCTGCTCGGGGACCTCGGAGAACCCGGCACTCAGTCC
AACTGGGTCTGAATGACCTGGAGGAGCTGCAGGCCGCACTCAGAGAGGCTGCACAGGCCGCCGAGAACGT
TCGCTCCACCACCCGCCAGCTGAGCCGCTCCCTGTCTGCGGACCTGCGCCATGCCCGTAGCCTGCGAGGC
TCCTGCCTTTTCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001045514

Insert Size: 4215 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_001045514.3, NP_001038979.1
RefSeq Size:	5480 bp
RefSeq ORF:	4215 bp
Locus ID:	100182
UniProt ID:	Q80VW7
Cytogenetics:	4 B3-C1
Gene Summary:	Centrosomal protein that plays a key role in cell delamination by regulating microtubule organization (PubMed:30787442). Required for the delamination and retention of neural stem cells from the subventricular zone during neurogenesis (PubMed:30787442). Also regulates the epithelial-to-mesenchymal transition in other epithelial cells (PubMed:30787442). Acts by increasing centrosomal microtubule nucleation and recruiting nucleation factors and minus-end stabilizers, thereby destabilizing microtubules at the adherens junctions and mediating constriction of the apical endfoot (PubMed:30787442). In addition, may also act as a transcription factor that specifically activates the expression of the CD40 receptor and its ligand CD40L/CD154, two cell surface molecules on lymphocytes that are critical for antigen-dependent-B-cell development (By similarity). Binds to A/T-rich promoters (By similarity). It is unclear how it can both act as a microtubule organizer and as a transcription factor; additional evidences are required to reconcile these two apparently contradictory functions (Probable).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (1) represents the longer transcript. Variants 1 and 2 encode the same protein.