

Product datasheet for MC223967

Aff1 (NM_133919) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Aff1 (NM_133919) Mouse Untagged Clone
Tag: Tag Free
Symbol: Aff1
Synonyms: 9630032B01Rik; Af; Af4; AW319193; Mllt; Mllt2h; R; Rob
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223967 representing NM_133919
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCAGCCATTCCAGCTTGTACAATGAAGATAGAACTGCTTGAATCAGAGAGAAGGAAAGACGCA
 ACCAAGAAGCTCACCAGGAGAAGGAGGCATTTCCGAGAAGGCTCCCCTGTTCCAGAGCCTTACAAGC
 TGCAAAAGGCGATGAGCTATCAAGTCGGATCCAGACCATGCTGGGTGACTATGAGGAGATGAAGGAGTTC
 CTGAGCAGCAAGTCCCACCCACCGCCTGGATGGCTCTGAAGACAGGCCGGGAAGCCAGATATCCCT
 TAGGTCATGACAGGGGAACGGGCTGCATCCAGCTCCCTCCGCACACATGTCTACCACCAGCCTATCCA
 CACTTCTGCTCCCGATCACGTCTGTCGGTAACATTAGCCACAGTCCAAGATGGCACAGCCAAGGATG
 GAGCCAAGTCTCCACACCAAAATCTATGATGGCCACGTCTGACTCAAGACCACCTCAGTCAGGGACATT
 GTTCCAGAAAGTGTGACCGAAGAGCTGAAGGAGACTCTGCTCCCGAGAGGAAGCTCTCGCCCTTGATCTC
 CTCTTTGCCATCCCGGTGCCCTCTATCACCTGTACATTCCAGGCTGCAGGGAACCAGCAAGGCTCAC
 AGCAGTGGCGTTAGCAGTAAAAGCTGTGTGGCCAAGTCTTCAAGGACTTGGTGGCGAAGGCCCAAG
 ATAAAGAGACTCCTCATGACGGTTTGGTGGCAGTTACCAGCTTGATCAGCCCTCCTCAGCCACCTTG
 CCAGACATTTCCACCCCTCCTCTCCCTCAAAAAGTGCTGCAATGCAGCAGAAGCCACGGCATATGTC
 CGTCCCATGGACGGTCAGGATCAGGCTCCAGTGAAGTCCCGAGCTGAAGCTGCCACTGGAGGACTATG
 GTCAGCAAAGCTTTGAGAAACCAGACCTTAAAGTGCCTGCCAAAGCCAAGCTCACCAGACTAAGGATGCC
 CTCTCAGTCGGTGGAGCAGCCGACTCCAATGAAGTCCATTGCGTTGAAGAGATTCTGAAGGAAATGACC
 CACTCGTGGCCACCGCTCTGACAGCCATACACACCCAGTACAGCCGAGCCGTCAGATTTCTTTCC
 CCACAAAGGACCCTCTGCAGTCACTGCAACCCAGAGCCAAAACAATATGACACGCCTTCAAAAAC
 CCACCCCAATCCCAGCAAGGAACCTCCATGCTGGAGGACGACCTGCAGCTCAGCGACAGTGAAGACAGC
 GACACGGAGCAAGCCACAGAGAAGCCTCCATCCCACCTGCACCTCCCAGCGCTCCGACAGACTTCCCG
 AGCCCGTGGCCTCAGCACATTCCAGTAGTGGGGAGTCAAGAGAGCAGCGAGTCAAGAGATTCTCAGACTC
 TGAGAGTGAGAGCAGCTCCAGCGACAGCGAGGAGGAGGAAGAGAACGAGCCCTGGAGACCCGGGCTCCC
 GAGCCCGAGCCTCCGACGACAAACAATGGCAGCTGGACAACCTGGTTGACCAAAGTCAACCAACCCTCAG



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TGCCCTGGATGGCCGGGGAGCACAGAGTCTCCACAATGGCGCCAGGAAAGTAAGGGTGTCTGCTGAGGG
 CAGCAGTGACCAGCAGCATCCTGATTCAAAGACCCTCTCCCAAAGAGCTCCAGCAAGACTCTCCGGGGT
 CCCTCTGAGGGGCCCCAGCCTGGGAAGAGGGGCTGTCCGAAATCCCCGCTCAACAGGAACCCCCACCTC
 GGCAAACCGTGGGAGCAAAACAACCCAGGAAACCCGCCAAGGGCTCCGGCCAGGCAGAGCCCCAGGCCAG
 CTCGCAGGCAGAGAGTGAAGTAGGACCCCTTCCCTACGGCTCAAAGGAGCAGACTTCAAAGACAGACCC
 AAGGTGAAGACGAAAGGCAGGCCGCGTGCCGTGGGAGCTCGGGAGCCTAAGCCAGAGGTCCTGCGCCCA
 CGCCTCAGGCAGCCGTGCCAGACCGAAGCCGCTGTGCCACCCCAAGTGAAGAGGAAAGCACAAGAG
 CTCCACGGCCCCCTCAAAGGCGCCCTCAGCCCCCAGCCTCCGAAGGACAGTGCTGGGGACAGGAACCCA
 GAACACTCTGCTCTTGTCTCCTTGACTCAGAGCCAGGGTCCATCCACAGCAGCAGGGGCAGCAGTGGCA
 GCGTCAGGACTAGTGGTGCCGACAGGCTGTGATTGCCCAAGGGGACGGCTGTAAAGACAAGCTCCTGTT
 GCCTTTGAGAGACACAAATTGCTCTCGCCGCTCAGGGACTCCCCACCACCGACAAGCTTGGTGGTGAAG
 ATAACCTTAGACTCCTCAGGAGATTCCCAGCCTCTGGGGAAGGGGAGCCGCCAGGAAAGCAGAAG
 ACAAGCAGCTGTCAGCAGGGAAGAAGCAGGACTCGGAGACCAAGAGCTGTGACAGCTCCAGCAGAGTGAC
 CAAGAAGAGAAAGGGTGACCCAGAAAAAGAGCACAGTAACAAGAGACACAACTGGATAAGTCGCAGACT
 GCGTCATCTTCATCTTCCATACAGAATCTTCCAGAACAAAAGCGCCAGGTCTCCTCAGAGAACTCAA
 GAAAGGAAATGCTGCCTCCAGCATCGGGCTCCTCAGTCTCCTCTCCTCATCCTCCAGAAAGCCAAGCAG
 ACCTGCACAGAAGAGGCCAAGGCCAGACGAAGACAGTGTAGCCAGGAACCCCCAGAAAGTGCCAGCAGC
 ACAAGAGCAGCTCTACAGACCCCTCCCGCTCCCAAGCACAGAAAAGTACAGGCCAGGGGCTCTGAACACA
 AGGGATCTTCTGGGGATGCTGCGAATGCTGCAAAATCCTTTTCCAGTGCCTTCTTTGCCGAATGGTAAACGC
 TAAACCAGGGAAGCCACAGGTGAAGTCTGACAGACAACAAGCTGACTTTACATGAAGGAGGCTAAAAAG
 CTGAAGTGCAAAGCAGAGACAAATGGTAGACAAGGCTGGAAAAGCCTTCAAGTATTTGGAAGCCGCTCCT
 CTTTTATCGAGTGTGGAATGGCCTCAGAGTCAGAAAGCTCAGCCAAGTCGGCGTACGCTGTGTACTCAGA
 AACCATAGACCTCATTAGGTATGTGATGTCACATAAAATGCTTCTCAGATAACACGATGCCAGCACAAGAG
 AAGATATTTGCTGTTTTATGCTTGCGTTGCCAGTCCCTTTTGAACATGGCGATGTTTCGATGTAAGAAAG
 ACACAGTGATGAAGTATTCTCGTACTCTCAGTGAACACTTCAAGAGTACTTCAAAGTGGCCAGGCACC
 TTCTCCATGCACGGCAAGAAGCACAGGCGTTCCGTCCCCCTCTCCCAATGCCTTCTCCTGCCAGCTCC
 GTGGGGTCCCAATCAAGTGTGGCAGCAGTATGGGGAGCGTGGGGTGACGGCCACCGTCAGTACTCCAG
 TCTCCATCCAGAACATGACCTCCTCCTATGTACCATCACATCCCATGTCCTTACGGCCTTTAGCCTTTG
 GGAACAGGCCGAGGCCCTACAAGGAAGAACAAGAATTCTTCGCTCAGCTCAGCACAAAAGTGCCTGTG
 TTGGCCCTCAACAGCAGCCTGGTGGACCTGGTGCCTACACAAGACAGGGCCTGCAGCGGCTAAAACAGT
 CACCCAAAGGCCCTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

Sgfl-MluI

ACCN:

NM_133919

Insert Size:

3657 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_133919.4](#), [NP_598680.3](#)

RefSeq Size: 8339 bp

RefSeq ORF: 3657 bp

Locus ID: 17355

Cytogenetics: 5 50.45 cM

Gene Summary: This gene encodes a member of the AF4/ lymphoid nuclear protein related to the Fragile X E syndrome (FRAXE) family of proteins, which have been implicated in human childhood lymphoblastic leukemia, fragile chromosome X intellectual disability, and ataxia. It is the prevalent mixed-lineage leukemia fusion gene associated with spontaneous acute lymphoblastic leukemia. Members of this family have three conserved domains: an N-terminal homology domain, an AF4/ lymphoid nuclear protein domain, and a C-terminal homology domain. Knockout of the mouse gene by homologous recombination severely affects early events in lymphopoiesis, including precursor proliferation or recruitment, but is dispensable for terminal differentiation. In addition, an autosomal dominant missense mutation results in several phenotypes including ataxia and adult-onset Purkinje cell loss in the cerebellum, indicating a role in Purkinje cell maintenance and function. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2017]

Transcript Variant: This variant (2) uses an alternate 5'-terminal exon, which results in a different 5' UTR and use of an alternate start codon. It encodes isoform 2, which has a distinct N-terminus compared to isoform 1.