

Product datasheet for **MC204844**

Kat2a (NM_020004) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kat2a (NM_020004) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Kat2a
Synonyms:	1110051E14Rik; AW212720; Gcn5; Gcn5l2; mmGCN5
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC063752
 GCGGCCCTAGGGCTGGGAGCGCGGCCCGCTCCGCTGCGGGGAGGCCATGGCGGAACCTTCCCAGGCC
 CAAACCCGGTCCCAGCAGCGAGCCCGGCCCTTCACTCCCCAGCCCTGCCCAACTTCGACTCCTGC
 GCCCAGTCCGGCTTCCAGCTCCACTCCGGCTCCGACTCCGGCACCAGCCCTGCCCAGCTGCAGCCCCA
 GCTGGGAGCACAGGGAGTGGGGCGCGGGGTAGGAAGTGGGGGGATCCGGCTCGACCTGGCCTGAGCC
 AGCAGCAGCGCTAGCCAGAGGAAGGCACAAGTCCGGGTCTGCCGCTGCCAAGAAGCTTGAGAACT
 AGGGGTCTTCTCAGCTTGAAGCCAATGAACTGCAAGTGAATGGCTGGAAAAACCCCAAGCCCCC
 ACCGCACCCCGCATGGACCTCCAGCAGCCAGCTGCCAACCTGAGCGAGTTGTGCCGTAGCTGTGAGCACC
 CTTTGGCGGACCATGTGTCCACCTGGAGAATGTGTGAGAGGACGAGATTAACCGCTCTTGGGAATGGT
 AGTAGATGTAGAAAATCTGTTTCTGTCTGTTTCCAAAGGAAGAGGACACAGACACCAAAACAAGTCTATTTT
 TACCTCTTCAAGCTCTTGCAGGAGTGCATTCTGCAGATGACACGGCCAGTGGTGGAGGGTCTTAGGCA
 GCCCCCCATTTGAGAAGCCTAACATTGAACAGGGTGTACTGAACTTTGTGAGTACAAAATTTAGCCACT
 GGCCCCCGAGAGCGCCAGACAATGTTTGAAGTCTCAAAGATGTTCTGCTCTGCCTTAACTACTGGAAG
 CTGGAGACCCCTGCTCAATTCGGCAGCGGTCCCAGTCTGAGGATGTCGCTACCTACAAAGTCAATTATA
 CCAGATGGCTCTGTTACTGCCACGTGCCCAGAGCTGCGACAGCCTCCCCGCTACGAGACCACCCAGT
 GTTTGGCCGAAGCCTTCTACGGTCCATTTTCACTGTACCCCGCCGCGAGCTACTGAAAAATTTCCGGGTG
 GAAAAGGACAAACTGGTGCCTGAGAAGAGGACCCTCATCCTCACTCACTTCCCCAAATTCCTGTCCATGC
 TTGAGGAAGAGATCTACGGGGCAAATTCCTCCATCTGGGAGTCAAGCTTACCATGCCACCTTCGGAGGG
 GACACAGCTGGTCCCGGCCAGCCACGGTCAAGTGAACAGTTGTACCCAGCTTCACTCCTTCCATGGGA
 GGAGGCAGCAACAGCTCCCTGAGCCTAGATTCCGACGGGACTGAGCCATGCCAGGGGAGAAGAGGAAGC
 TTCTGAGAACCTGACCTGGAGGATGCCAAGCGGCTCCGCGTATGGGGACATCCCCATGGAGCTGGT
 CAATGAGGTGATGCTGACGATCACTGACCCCGCTGCCATGCTGGGGCCTGAGACAAGCTGCTTTCCGGCC
 AACGCACTCGAGATGAGACGGCTCGCTGGAAGAACGGCGAGGAATCATCGAGTCCAGCTTATTGGCA
 ACTCCCTGACGCCAAGGCCAACCGCGCGTGTCTGCTCTGGCTCGTGGGGCTGCAAGTGTCTTTTCCCA
 CCAGCTGCCAAGAATGCCAAGGAATATATCGCCCGCCTCGTCTTTGACCCGAAGCACAAGACCCTGGCC
 CTGATCAAGGATGGGCGGGTCACTCGGTGGCATTGCTTCCGCATGTTTCCCACTCAGGGCTTACGGAAA
 TCGTCTTCTGTGCCGTACCTCAAATGAGCAGGTCAAGGGCTATGGCACCCACCTGATGAACCACCTAAA
 GGAGTACCACATCAAACACAGCATCCTTTACTTTCTCACCTATGCTGACGAGTACGCCATTGGCTACTTC
 AAAAAGCAGGGCTTCTCCAAAGACATCAAGGTGCCAAGAGCCGCTATCTGGGTACATCAAGGACTATG
 AAGGAGCGACGCTGATGGAGTGTGAGCTGAATCCCGAATCCCCTACACAGAGCTGTCCACATCATCAA
 GAAACAGAAAGAGATCATCAAGAAGTTGATTGAGCGCAAACAGGCACAGATCCGCAAGGTCTACCCTGGA
 CTAGCTGCTTCAAAGAGGGAGTGAAGCAGATCCCGGTGGAGAGCGTCCCTGGCATTGAGAGACAGGCT
 GGAAGCCACTGGGAAAGGAGAAGGGCAAGGAGCTTAAGGATCCTGATCAGCTATATACGACCTCAA
 CCTGCTGGCTCAGATCAAGTACACCCCAAGTGCCTGGCCCTTCCATGGAACCTGTGAAGAAGTCAAGGCT
 CCTGACTACTACGAGGTTATCCGTTTCCCATTGACCTGAAGACCATGACAGAACGGTTGCGCAGTCCGCT
 ACTATGTGACCCGGAAGCTTTCGTAGCTGACCTGCAGCGGTGATCGCCAACTGCCGGGAGTACAATCC
 CCCAGACAGCGAATACTGTCGCTGCGCCAGTGCCTGGAGAAGTCTTCTACTTCAAGCTCAAAGAGGGA
 GGGCTCATCGACAAGTAGCCCCAGCTGGGATCCGCAACATCCACCTCCATCTCCTCAGATCCGTTTGGG
 GGCTCCCCGGCCCCCTCTCCCGACTCAGCTGGAGAACTCCAGCCAGGGACCCAGATCTTACAGACTTT
 CTGGCCAGCAGGCACTCACTCCCAAGCCAGCAGCTCTCTTCCACCTTCTTGCATCCCACCTTGGGGAG
 ACGTCTGGTCTGGGGCCAGCCGTTGTAGAATGTCTGGTGGCCAGGGCATGAACTGTTGGTCTTATAGA
 GCCATGCAGGCTGAGCATCCTGAGCCTGGTCCCATGCCTGTTTCCAGGGCCAGGACTATTCAAGTGAAGT
 AGCCTTACATGGAAACAGCCAGACTGGAGGAACCATGAGGGGCCTTGGCTTATCTACTACTGTTGTCT
 ATCTGTCCCTCCAGGATTGGGGCAGGAGGACCATTCATTCTTGGCATTAAATCCCTCGGAGGGAACAAT
 AAAGCTTTTTTTTCCCCAAA AAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI
ACCN: NM_020004
Insert Size: 2490 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:	<ol style="list-style-type: none">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:	BC063752 , AAH63752
RefSeq Size:	3095 bp
RefSeq ORF:	2490 bp
Locus ID:	14534
UniProt ID:	Q9JHD2
Cytogenetics:	11 63.53 cM

Gene Summary:

Protein lysine acyltransferase that can act both as an acetyltransferase and succinyltransferase, depending on the context (PubMed:28424240). Acts as a histone lysine succinyltransferase: catalyzes succinylation of histone H3 on 'Lys-79' (H3K79succ), with a maximum frequency around the transcription start sites of genes (By similarity). Succinylation of histones gives a specific tag for epigenetic transcription activation (By similarity). Association with the 2-oxoglutarate dehydrogenase complex, which provides succinyl-CoA, is required for histone succinylation (By similarity). In different complexes, functions either as an acetyltransferase (HAT) or as a succinyltransferase: in the SAGA and ATAC complexes, acts as a histone acetyltransferase (By similarity). Has significant histone acetyltransferase activity with core histones, but not with nucleosome core particles (By similarity). Acetylation of histones gives a specific tag for epigenetic transcription activation (PubMed:28424240). Involved in long-term memory consolidation and synaptic plasticity: acts by promoting expression of a hippocampal gene expression network linked to neuroactive receptor signaling (PubMed:25024434). Acts as a positive regulator of T-cell activation: upon TCR stimulation, recruited to the IL2 promoter following interaction with NFATC2 and catalyzes acetylation of histone H3 at Lys-9 (H3K9ac), leading to promote IL2 expression (PubMed:28424240). Also acetylates non-histone proteins, such as CEBPB, PLK4 and TBX5 (PubMed:17301242). Involved in heart and limb development by mediating acetylation of TBX5, acetylation regulating nucleocytoplasmic shuttling of TBX5 (By similarity). Acts as a negative regulator of centrosome amplification by mediating acetylation of PLK4 (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (a).