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Product datasheet for MR230030

Kat5 (NM_001199247) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kat5 (NM_001199247) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kat5
Synonyms:	AI839539; CPLA2; Htatip; Htatip1; PLIP; Tip55; Tip60
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>MR230030 representing NM_001199247
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGAGGTGGGGGAGATAATCGAGGGCTGCCGCCTGCCCGTGCTGCGGCGCAACCAGGACAACGAAG
ATGAGTGGCCCCTGGCTGAGATCCTGAGCGTGAAGGACATCAGTGGCCGAAAGCTTTTCTATGTCCATTA
CATTGACTTCAACAAACGTCTGGATGAATGGGTGACTCACGAGCGGCTGGACTTAAAGAAGATCCAATTT
CCCAAGAAAGAGGCCAAGACACCTACCAAGAACGGACTTCCTGGGTCCCGCCCCGGCTCTCCCGAAAGAG
AGGTGAAACGGAAGGTGGAGGTGGTTTCACCAGCAACCCCAGTGCCCAGCGAGACAGCCCCAGCCTCGGT
TTTCCCTCAGAATGGGTCAGCCCGTAGGGCAGTGGCAGCCCAGCCTGGACGGAAGCGGAAATCTAATTGC
TTGGGCACTGATGAGGATTCTCAGGACAGCTCAGATGGAATACCGTCAGCACCACGAATGACTGGCAGTC
TGGTGTCTGACCGGAGCCACGACGACATTGTCACCCGGATGAAGAACATTGAGTGTATTGAGCTTGGCCG
GCACCGCCTCAAGCCGTGGTACTTCTCCCCGTACCCACAAGAGCTTACCACGCTACCCGTCCTCTACCTG
TGCGAATTTTGCCTCAAATATGGCCGTAGCCTCAAGTGTCTGCAACGCCACTTGACCAAATGTGATCTTC
GGCACCCTCCAGGCAATGAAATTTACCGCAAGGGCACCATCTCCTTTTTTGAGATTGATGGACGGAAAAA
CAAGAGTTACTCACAAAACCTGTGTCTTCTGGCCAAGTGTTTCCTGGACCACAAAACACTGTACTATGAC
ACTGACCCCTTCCTCTTCTACGTAATGACGGAGTATGACTGCAAAGGTTTCCACATCGTGGGCTACTTCT
CCAAGGAAAAGGAATCCACAGAAGATTACAATGTGGCCTGCATCTTGACTCTGCCTCCCTACCAGCGCCG
GGGCTATGGCAAGCTGCTTATTGAGTTCAGCTATGAACTCTCGAAAGTAGAAGGGAAGACCGGAACTCCT
GAGAAACCCCTGTCAGATCTTGGCCTCCTATCCTACCGAAGTTACTGGTCCCAAACCATCTTGGAGATCC
TGATGGGGCTGAAGTCGGAGAGCGGGGAGAGGCCACAGATCACCATCAATGAGATCAGTGAAATCACTAG
TATCAAGAAAGAAGATGTCATCTCCACACTGCAGTATCTCAACCTCATCAATTACTACAAGGGCCAGTAT
ATCCTAACTCTGTCAGAAGACATCGTGGATGGGCATGAGCGGGCTATGCTCAAGCGGCTCCTTCGGATTG
ACTCCAAGTGTCTGCACTTCACTCCCAAAGACTGGAGCAAGAGAGGAAAGTGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230030 representing NM_001199247
Red=Cloning site Green=Tags(s)

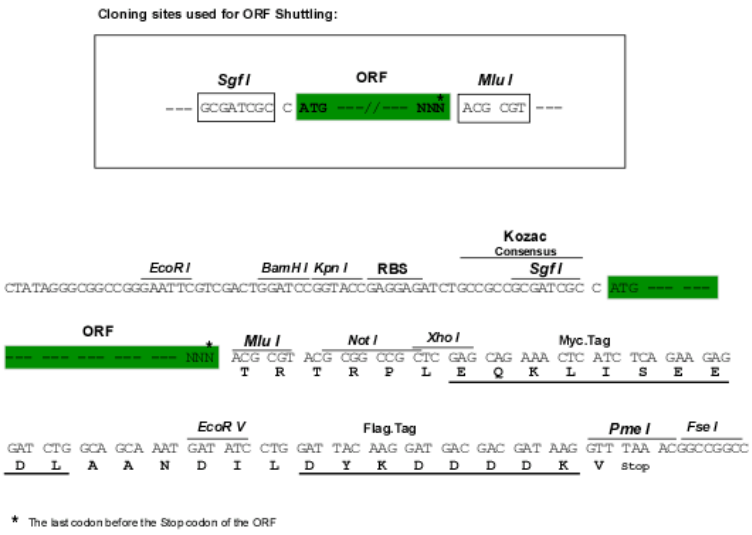
MAEVGEIIEGCRLPVLRRNQDNEDEWPLAEILSVKDISGRKLFYVHYIDFNKRLDEWVTHERLDLKKIQF
PKKEAKTPTKNGLPGSRPGSPEREVKRKVEVVSPATPVPSETAPASVFPQNGSARRAVAAQPGRKRKSNC
LGTDEDSQDSSDGIPSAPRMTGSLVSDRSHDDIVTRMKNIECIELGRHRLKPWYFSPYPQELTTLPVLYL
CEFCLKYGRSLKCLQRHLTKCDLRHPPGNEIYRKGTISFFEIDGRKNKSYSQNLCLLAKCFLDHKTLYYD
TDPFLFYVMTEYDCKGFHIVGYFSKEKESTEDYNVACILTLPPYQRRGYGKLLIEFSYELSKVEGKTGTP
EKPLSDLGLLSYRSYWSQTILEILMGLKSESGERPQITINEISEITSIKKEDVISTLQYLNLINYYKGQY
ILTLSEDIVDGHERAMLKRLLRIDSKCLHFTPKDWSKRGKW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja3368_g03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001199247

ORF Size: 1383 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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

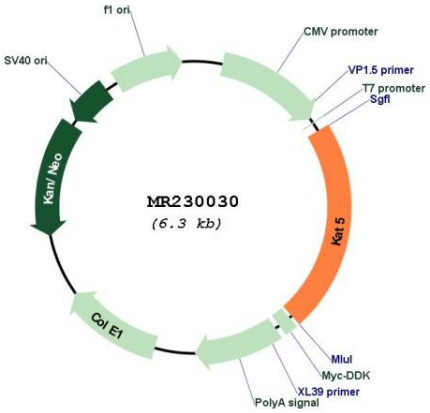
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001199247.1, NP_001186176.1
RefSeq Size:	1872 bp
RefSeq ORF:	1386 bp
Locus ID:	81601
UniProt ID:	Q8CHK4
Cytogenetics:	19 A
MW:	53.1 kDa
Gene Summary:	Catalytic subunit of the NuA4 histone acetyltransferase complex which is involved in transcriptional activation of select genes principally by acetylation of nucleosomal histones H4 and H2A (By similarity). This modification may both alter nucleosome-DNA interactions and promote interaction of the modified histones with other proteins which positively regulate transcription (By similarity). This complex may be required for the activation of transcriptional programs associated with oncogene and proto-oncogene mediated growth induction, tumor suppressor mediated growth arrest and replicative senescence, apoptosis, and DNA repair (By similarity). NuA4 may also play a direct role in DNA repair when recruited to sites of DNA damage (By similarity). Component of a SWR1-like complex that specifically mediates the removal of histone H2A.Z/H2AFZ from the nucleosome (By similarity). Also acetylates non-histone proteins, such as ATM, NR1D2, RAN, FOXP3, ULK1 and RUBCNL/Pacer (PubMed:22539723). Directly acetylates and activates ATM. Relieves NR1D2-mediated inhibition of APOC3 expression by acetylating NR1D2 (By similarity). Promotes FOXP3 acetylation and positively regulates its transcriptional repressor activity. Acetylates RAN at 'Lys-134' (By similarity). Together with GSK3 (GSK3A or GSK3B), acts as a regulator of autophagy: phosphorylated at Ser-86 by GSK3 under starvation conditions, leading to activate acetyltransferase activity and promote acetylation of key autophagy regulators, such as ULK1 and RUBCNL/Pacer (PubMed:22539723).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR230030