

Product datasheet for **MG225908**

Kat2b (NM_001190846) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kat2b (NM_001190846) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kat2b
Synonyms:	A930006P13Rik; AI461839; AW536563; p/CAF; Pcaf
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG225908 representing NM_001190846
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGTCTGAAATGGCAGAGGAGTCTGTAAATGCAATGGCTGGAAGAACCCTAACCCCTCTCCTACTC
 CACCAAGAGGAGACCTCCAGCAGATAATTGTCAGTTTGACAGAATCCTGTGCGAAGCTGTAGCCATGCCCT
 TGCTGCTCACGTTTCTCACTTGGAGAATGTGTCAGAGGAAGAGATGGACAGACTCCTGGGAATTGTGTTG
 GATGTGGAGTACCTTTACCTGCGTCCACAAAGAAGAAGATGCAGATACCAAACAAGTGTACTTCTACC
 TATTCAAGCTCTTGAGAAAGTCAATTTTACAAAGAGGAAAACCTGTGGTTGAAGGCTCCTTGAGAGAAGAA
 GCCGCCATTTGAGAAGCCAGTATTGAACAGGGTGTGAACAACCTCGTGCAGTACAAGTTTAGTCACTTG
 CCATCGAAAGAGAGGCAGACAACGATCGAGCTGGCCAAGATGTTTCTGAACCGCATCACTACTGGCATC
 TGGAGGCTCCATCTCAGCGGAGACTACGGTCTCCAATGATGACATCTCTGGATAACAAGGAAAACACAC
 AAGGTGGTTGTGCTACTGCAATGTACCGCAGTTCTGTGACAGCTTACCTCGGTACGAAACCACAAAGGTG
 TTTGGGAGAACATTGCTTCGCTCGGTCTTACCATCATGAGACGACAGCTTTGGAACAAGCCAGACAGG
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 GGAAGAAGAAGTGTATAGTCAAATTTCTCTATCTGGGATCAGGATTTTCTCTCAGCCTCTTCCAGAACC
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 CTTCCCATGAGCAGATCAATGGAGGGAGAACAAGTCTGGATGCAGAGGCTCTTCTGGGCTTGAAGCAAA
 CCCGGGAGAAAAGAGGAAAATGAACAACCTCATGCTCCCGAGGAGGCCAAGAGATCTCGAGTGTGGGG
 GATATTTCCCGTGAATTGATCAATGAGGTGATGTCTACCATCACAGACCTGCAGGGATGCTTGGACCAG
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 AGTATGCCATCGGCTATTTCAAGAAGCAGGGTTTCTCAAAGAAATCAAATACCTAAAACCAAATATGT
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 CTTTACAGCACCTCAAGAACATCCTGCAGCAGGTGAAGAACCATCCAAATGCTTGGCCTTTTATGGAAC
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 TGAACGCCTCAGGAACAGGTAATGTGTCTAAGAAGTTATTCATGGCGGACTTGCAACGAGTGTTCACC
 AACTGCAAGGAGTACAACCTCCCGAGAGCGAGTACTACAAATGCGCCAGCATCCTGGAGAAGTTCTTCT
 TCAGTAAAATTAAGGAAGCAGGGTTGATTGACAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG225908 representing NM_001190846
 Red=Cloning site Green=Tags(s)

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MSPEMAEEESCKNGWKNPNPSPPTPRGDLQQIIIVSLTESCRSCSHALAAHVSHLENVSEEMDRLLGIVL
DVEYLFCTCVHKEEDADTKQVYFYLFKLLRKSILQRGKPVVEGSLEKKPPFEKPSIEQGVNMFVQYKFSHL
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FGRTLRSVFTIMRRQLLEQARQEKDKLPLEKRTLILTHFPKFLSMLLEEVYSQNSPIWDQDFLSASSRT
SPLGIQTVISPPVTGTALFSSNSTSHEQINGGRTSPGCRGSSGLEANPGEKRMNNSHAPEEAKRSRVMG
DIPVELINEVMSTITDPAGMLGPETNFLSAHSARDEAARLEERRGVIEFHVVGNLSLNQKPNKKILMWLVG
LQNVFSQLPRMPKEYITRVLVDFPKHKTALIKDGRVIGGICFRMFPSQGFTEIVFCAVTSNEQVKGYGT
HLMNHLKEYHIKHEILNFLTAYADEYAIQYFKKQGFKEIKIPKTKYVGYIKDYEGATLMGCENLPQIPYT
EFSVIIKKQKEIIKKLIERKQAQIRKVYPGLSCFKDGVQRPIESIPGIRETGWPKSGKEKSKEPKDPEQ
LYSTLKNILQQVKNHPNAWPFMEPVKRTEAPGYEVIRFPMDLKTMSERLRNRYVSKKLFMADLQRVFT
NCKEYNPPESEYKCAKILEKFFFSKIKEAGLIDK
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001190846

ORF Size: 2205 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_001190846.1](#), [NP_001177775.1](#)

RefSeq Size: 4100 bp

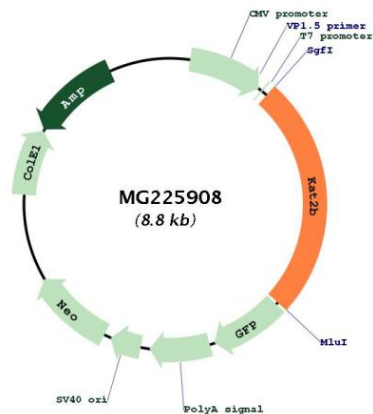
RefSeq ORF: 2208 bp

Locus ID: 18519

Cytogenetics: 17 27.86 cM

Gene Summary: Functions as a histone acetyltransferase (HAT) to promote transcriptional activation. Has significant histone acetyltransferase activity with core histones (H3 and H4), and also with nucleosome core particles. Also acetylates non-histone proteins, such as ACLY, PLK4 and TBX5. Inhibits cell-cycle progression and counteracts the mitogenic activity of the adenoviral oncoprotein E1A. Acts as a circadian transcriptional coactivator which enhances the activity of the circadian transcriptional activators: NPAS2-ARNTL/BMAL1 and CLOCK-ARNTL/BMAL1 heterodimers. Involved in heart and limb development by mediating acetylation of TBX5, acetylation regulating nucleocytoplasmic shuttling of TBX5. Acts as a negative regulator of centrosome amplification by mediating acetylation of PLK4. Also acetylates spermidine (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG225908