

## Product datasheet for **MR210856L4V**

### **Kat2a (NM\_001038010) Mouse Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

Product Type:	Lentiviral Particles
Product Name:	Kat2a (NM_001038010) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Kat2a
Synonyms:	1110051E14Rik; AW212720; Gcn5; Gcn5l2; mmGCN5
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_001038010
ORF Size:	2487 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR210856).
OTI Disclaimer:	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_001038010.2</a> , <a href="#">NP_001033099.1</a>
RefSeq Size:	3045 bp
RefSeq ORF:	2490 bp



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Locus ID: 14534

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]