

## Product datasheet for **TP510741**

### **Kdm1a (NM\_133872) Mouse Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Purified recombinant protein of Mouse lysine (K)-specific demethylase 1A (Kdm1a), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
<b>Species:</b>	Mouse
<b>Expression Host:</b>	HEK293T
<b>Expression cDNA Clone or AA Sequence:</b>	>MR210741 representing NM_133872 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MATGAAGERTPRKKEPPRASPPGGLAEPGSAAGPQAGPTAGPGSATPMETGIAETPEGRRTSRRKRAKVE  
YREMDLANLSEDEYYSEEERNAKAEKEKKLPPPPQAPPEEENESEPEEPSGVEGAAFQSRPHDRMT  
SQEAACFPDIISGPQQTQKVFLFIRNRTLQLWLDNSKIQLTFEATLQQLEAPYNSDTVLVHRVHSYLERH  
GLINFGIYKRIKPLPIKKTGKVIIIGSGVSGLAARQLQSFGMDVTLLEARDRVGGRVATFRKGNVYADL  
GAMVVTGLGGNPMVAVSKQVNMELAKIKQCPLYEANGQAVPKEKDEMVEQEFNRLLLEATSYLSHQLD  
FN  
VLNNKPVSLGQALEVVIQLQEKHVKDEQIEHWKIVKTQEELKELLNKMVNLKEKIKELHQYKEASEVK  
PPRDITAEFLVKS KHRDLTALCKEYDELAETQGKLEELQLEANPPSDVYLSSRDRQILDWHFANLEFA  
NATPLSTLSLKHWDQDDDFEFTGSHLTVRNGYSCVPVALAEGLDIKLNTAVRQVRYTASGCEVIAVNTRS  
TSQTFIYKCAVLCTPLGVLKQPPAVQFVPLPEWKTSVAVQRMGFGNLNKVVLFCFDRVFWDPVSNLFG  
HVGSTTASRGELFLWNLYKAPILLALVAGEAAGIMENISDDVIVGRCLAILEGIFGSSAVPQPKETVVS  
RWRADPWARGSYSYVAAGSSGNDYDLMAQPITGPSIPGAPQPIRLFFAGEHTIRNYPATVHGALLSGL  
REAGRIADQFLGAMYTLPRQATPGVPAQQSPSM

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

<b>Tag:</b>	C-MYC/DDK
<b>Predicted MW:</b>	93.3 kDa
<b>Concentration:</b>	>0.05 µg/µL as determined by microplate BCA method
<b>Purity:</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.



[View online »](#)

<b>Storage:</b>	Store at -80°C after receiving vials.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<u><a href="#">NP_598633</a></u>
<b>Locus ID:</b>	99982
<b>UniProt ID:</b>	<u><a href="#">Q6ZQ88</a></u>
<b>RefSeq Size:</b>	2999
<b>Cytogenetics:</b>	4 68.8 cM
<b>RefSeq ORF:</b>	2409
<b>Synonyms:</b>	1810043O07Rik; AA408884; Aof2; D4Ertd478e; Kdm1; Lsd1; mKIAA0601
<b>Summary:</b>	<p>Histone demethylase that can demethylate both 'Lys-4' (H3K4me) and 'Lys-9' (H3K9me) of histone H3, thereby acting as a coactivator or a corepressor, depending on the context. Acts by oxidizing the substrate by FAD to generate the corresponding imine that is subsequently hydrolyzed. Acts as a corepressor by mediating demethylation of H3K4me, a specific tag for epigenetic transcriptional activation. Demethylates both mono- (H3K4me1) and di-methylated (H3K4me2) H3K4me. May play a role in the repression of neuronal genes. Alone, it is unable to demethylate H3K4me on nucleosomes and requires the presence of RCOR1/CoREST to achieve such activity. Also acts as a coactivator of androgen receptor (ANDR)-dependent transcription, by being recruited to ANDR target genes and mediating demethylation of H3K9me, a specific tag for epigenetic transcriptional repression. The presence of PRKCB in ANDR-containing complexes, which mediates phosphorylation of 'Thr-6' of histone H3 (H3T6ph), a specific tag that prevents demethylation H3K4me, prevents H3K4me demethylase activity of KDM1A. Demethylates di-methylated 'Lys-370' of p53/TP53 which prevents interaction of p53/TP53 with TP53BP1 and represses p53/TP53-mediated transcriptional activation (By similarity). Demethylates and stabilizes the DNA methylase DNMT1. Required for gastrulation during embryogenesis. Component of a RCOR/GFI/KDM1A/HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development. Effector of SNAI1-mediated transcription repression of E-cadherin/CDH1, CDN7 and KRT8. Required for the maintenance of the silenced state of the SNAI1 target genes E-cadherin/CDH1 and CDN7.[UniProtKB/Swiss-Prot Function]</p>