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Product datasheet for TA347222

KDM1A Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF, WB
Recommended Dilution:	ChIP/ChIP-seq (2-5ug/ChIP); ELISA (1:200 ?? 1:1,000); Western blotting (1:1,000); IF (1:500)
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	The immunogen for anti-LSD1 antibody: human LSD1 (Lysine-specific demethylase 1), using a KLH-conjugated synthetic peptide from the inner part of the protein.
Concentration:	lot specific
Purification:	Affinity purified polyclonal antibody in PBS containing 0.05% azide and 0.05% ProClin 300.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	lysine demethylase 1A
Database Link:	NP_001009999 Entrez Gene 23028 Human O60341
Background:	LSD1 (lysine specific demethylase 1, UniProt/Swiss-Prot entry O60341) is a component of the histone demethylase complex that uses FAD as a prosthetic goup. LSD1 may have a dual effect on gene transcription. As it demethylates the mono- and dimethylated 'Lys-4' of histone H3, which are associated with transcriptional activation, LSD1 can act as a repressor of gene expression. However, LSD1 is also capable of demethylating 'Lys-9' of histone H3, a specific tag for epigenetic transcriptional repression, thereby leading to activation of androgen receptor target genes. LSD1 therefore mediates different processes such as embryonic development, cell differentiation and proliferation, stem and cancer cell biology.
Synonyms:	AOF2; BHC110; CPRF; KDM1; LSD1
Protein Families:	Druggable Genome, Transcription Factors

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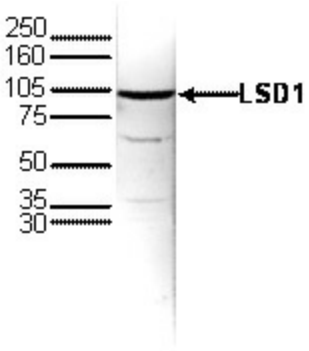
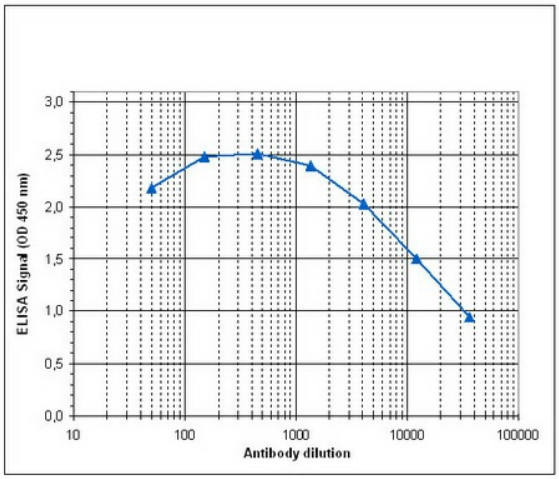
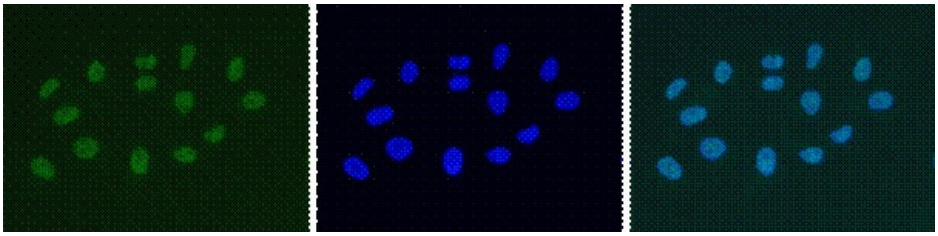
Product images:



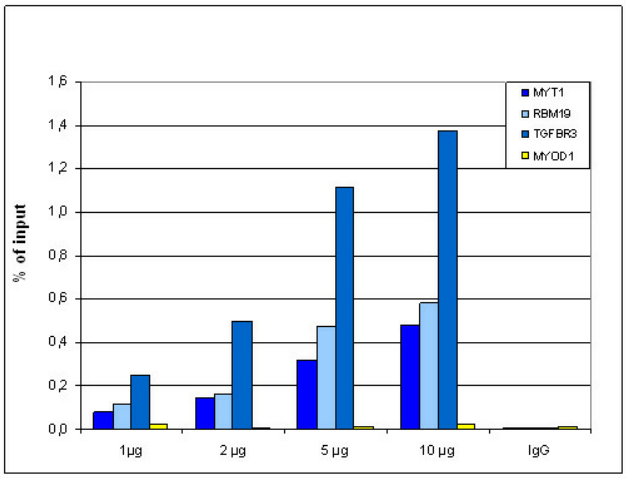
WB was performed using nuclear extracts from HeLa cells (40 ug) and the antibody against LSD1 diluted 1:1,000 in TBS-Tween containing 5% skimmed milk. The molecular weight marker (in kDa) is shown on the left. The location of the protein of interest is indicated on the right.



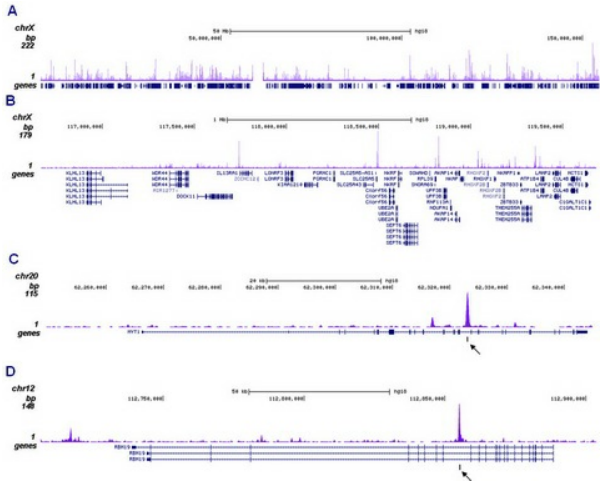
Determination of the antibody titer To determine the titer of the antibody, an ELISA was performed using a serial dilution of the antibody against LSD1 in antigen coated wells. By plotting the absorbance against the antibody dilution (Figure 3), the titer of the antibody was estimated to be 1:20,000.



HeLa cells were stained with the antibody against LSD1 and with DAPI. Cells were fixed with 4% formaldehyde for 10' and blocked with PBS/TX-100 containing 5% normal goat serum and 1% BSA. The cells were immunofluorescently labelled with the LSD1 antibody (left) diluted 1:500 in blocking solution followed by an anti-rabbit antibody conjugated to Alexa488. The middle panel shows staining of the nuclei with DAPI. A merge of the two stainings is shown on the right.



ChIP was performed with the ab against LSD1 on sheared chromatin from 4,000,000 K562 cells. An antibody titration consisting of 1, 2, 5 and 10 ug per ChIP experiment was analysed. IgG (2 ug/IP) was used as negative control. qPCR primers were for specific regions in the MYT1, RBM19, and TGFBR3 genesas positive controls, and for the MYOD1 gene, used as negative control. Image shows the recovery, expressed as a % of input (the relative amount of IP'd DNA compared to input DNA after qPCR analysis).



ChIP was performed on sheared chromatin from 4,000,000 K562 cells using 5 ug ab. The IP'd DNA was subsequently analysed on an Illumina HiSeq 2000. The 50 bp tags were aligned to the human genome using the BWA algorithm. Image shows the peak distribution along the complete sequence and a 3 Mb region of the X-chromosome and in three regions surrounding the MYT1, RBM19 and TGFBR3 positive controls, respectively (C, D and E). The position of the amplicon used for ChIP-qPCR is indicated by arrow.