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JHDM1D Rabbit pAb

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Catalog # AP56605

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q6ZMT4
Predicted	Rat, Pig, Dog, Human, Mouse, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	106557
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human JHDM1D
Epitope Specificity	501-600/941
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	JHDM1D is a 941 amino acid protein belonging to the JHDM1 histone demethylase family. Existing as two alternatively spliced isoforms, JHDM1D contains one JmjC domain and a PHD-type zinc finger. The gene encoding JHDM1D maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

Additional Information

Gene ID	80853
Other Names	Lysine-specific demethylase 7A, JmjC domain-containing histone demethylation protein 1D, Lysine-specific demethylase 7, [histone H3]-dimethyl-L-lysine9 demethylase 7A, 1.14.11.65, KDM7A, JHDM1D, KDM7, KIAA1718
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	KDM7A
Synonyms	JHDM1D, KDM7, KIAA1718
Function	Histone demethylase required for brain development. Specifically demethylates dimethylated 'Lys-9', 'Lys-27' and 'Lys-36' (H3K9me2, H3K27me2, H3K36me2, respectively) of histone H3 and monomethylated histone H4 'Lys-20' residue (H4K20Me1), thereby playing a central role in histone code (PubMed:20023638, PubMed:20622853). Specifically binds trimethylated 'Lys-4' of histone H3 (H3K4me3), affecting histone demethylase specificity: in presence of H3K4me3, it has no demethylase activity toward H3K9me2, while it has high activity toward H3K27me2. Demethylates H3K9me2 in absence of H3K4me3 (PubMed:20023638). Has activity toward H4K20Me1 only when nucleosome is used as a substrate and when not histone octamer is used as substrate (PubMed:20622853).
Cellular Location	Nucleus.

Background

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