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JMJD7 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP59267

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	P0C870
Reactivity	Rat, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35932

Additional Information

Gene ID	100137047
Other Names	Bifunctional peptidase and (3S)-lysyl hydroxylase JMJD7, 1.14.11.63, 3.4.-.-, JmjC domain-containing protein 7, Jumonji domain-containing protein 7, L-lysine (3S)-hydroxylase JMJD7, JMJD7 {ECO:0000303|PubMed:28847961, ECO:0000312|HGNC:HGNC:34397}
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=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	JMJD7 {ECO:0000303|PubMed:28847961, ECO:0000312|HGNC:HGNC:34397}
Function	Bifunctional enzyme that acts both as an endopeptidase and 2-oxoglutarate-dependent monooxygenase (PubMed:28847961, PubMed:29915238). Endopeptidase that cleaves histones N-terminal tails at the carboxyl side of methylated arginine or lysine residues, to generate 'tailless nucleosomes', which may trigger transcription elongation (PubMed:28847961). Preferentially recognizes and cleaves monomethylated and dimethylated arginine residues of histones H2, H3 and H4 (PubMed:28847961). After initial cleavage, continues to digest histones tails via its aminopeptidase activity (PubMed:28847961). Additionally, may play a role in protein biosynthesis by modifying the translation machinery (PubMed:29915238). Acts as a Fe(2+) and 2- oxoglutarate-dependent monooxygenase, catalyzing (S)-stereospecific hydroxylation at C-3 of 'Lys-22' of DRG1 and 'Lys-21' of DRG2 translation factors (TRAFAC), promoting their interaction with ribonucleic acids (RNA) (PubMed:29915238).

Cellular Location	Nucleus. Cytoplasm

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.