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SMYD5 Rabbit pAb

Catalog # AP97897

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q6GMV2
Other Accession	Q6GMV2
Reactivity	Rat
Predicted	Pig, Human, Mouse, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47341
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SMYD5
Epitope Specificity	21-120/418
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 MYND-type zinc finger. Contains 1 SET domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Additional Information

Gene ID	10322
Other Names	NN8-4AG; RAI15; RRG1; ZMYND23; SMYD5_CHICK; SMYD5; SET and MYND domain-containing protein 5; [histone H3]-lysine20 N-trimethyltransferase SMYD5; [histone H4]-lysine36 N-trimethyltransferase SMYD5; 2.1.1.-; SMYD5_HUMAN; Protein NN8-4AG; Retinoic acid-induced protein 15; SMYD5_MOUSE; SMYD family member 5; retinoic acid induced 15
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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	SMYD5 {ECO:0000303|PubMed:28951459, ECO:0000312|HGNC:HGNC:16258}
Function	Protein-lysine N-trimethyltransferase that specifically catalyzes trimethylation of 'Lys-22' of the RPL40/eL40 subunit of the 60S ribosome, thereby promoting translation elongation and protein synthesis

(PubMed:39048817, PubMed:39103523). May also act as a histone methyltransferase in the context of histone octamers, but not on nucleosome substrates: trimethylates 'Lys-36' of histone H3 and 'Lys- 20' of histone H4 to form H3K36me3 and H4K20me3, respectively (By similarity). The histone methyltransferase activity, which is independent of its SET domain, is however unsure in vivo (PubMed:39048817, PubMed:39103523). In association with the NCoR corepressor complex, involved in the repression of toll-like receptor 4 (TLR4)-target inflammatory genes in macrophages, possibly by catalyzing the formation of H4K20me3 at the gene promoters (By similarity). Plays an important role in embryonic stem (ES) cell self-renewal and differentiation (By similarity). Maintains genome stability of ES cells during differentiation through regulation of heterochromatin formation and repression of endogenous repetitive DNA elements by promoting H4K20me3 marks (PubMed:28951459). Acts as a regulator of the hypothermia response: its degradation in response to mild hypothermia relieves the formation of H3K36me3 at gene promoters, allowing expression of the neuroprotective gene SP1 (By similarity).

Cellular Location Cytoplasm

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