10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

SMYD5 (RAI15) Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6234a

Specification

SMYD5 (RAI15) Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q6GMV2
Other Accession	Q3TYX3, NP_006053
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**47341**
Antigen Region	**341-371**

SMYD5 (RAI15) Antibody (C-term) - Additional Information

Gene ID 10322

Other Names
SET and MYND domain-containing protein 5, 211-, Protein NN8-4AG, Retinoic acid-induced protein 15, SMYD5, RAI15

Target/Specificity
This SMYD5 (RAI15) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 341-371 amino acids from the C-terminal region of human SMYD5 (RAI15).

Dilution
WB~~1:1000
IHC-P~~1:50~100
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SMYD5 (RAI15) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SMYD5 (RAI15) Antibody (C-term) - Protein Information

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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).

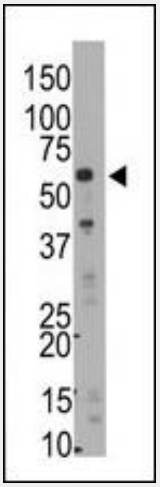
Cellular Location
Cytoplasm

SMYD5 (RAI15) Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SMYD5 (RAI15) Antibody (C-term) - Images



The anti-Rai15 C-term Pab (Cat. #AP6234a) is used in Western blot to detect Rai15 in mouse liver tissue lysate.

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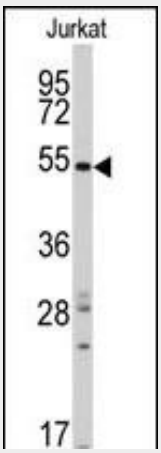
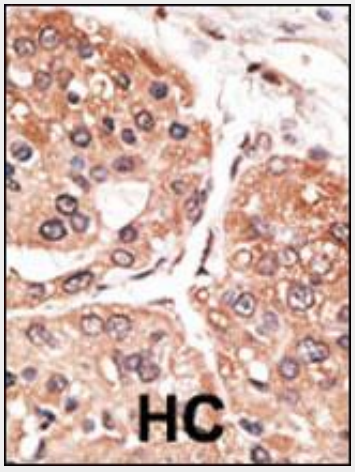


Western blot analysis of anti-RAI15 Antibody (C-term) ((Cat.#AP6234a) in Jurkat cell line lysates (35ug/lane).RAI15(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

SMYD5 (RAI15) Antibody (C-term) - Background

Retinoic acid plays a critical role in development, cellular growth, and differentiation. The specific function of the protein for this intronless, retinoic acid-induced gene has not yet been determined; however, it has been suggested to play a role in development.