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JMJD6 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14160b

Specification

JMJD6 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q6NYC1
Other Accession	Q6AYK2, Q9ERI5, Q9VD28, Q6PFM0, Q5ZMK5, Q58DS6, Q7ZX37, Q6GND3, NP_055982.2, NP_001074930.1
Reactivity	**Human**
Predicted	**Xenopus, Bovine, Chicken, Zebrafish, Drosophila, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**46462**
Antigen Region	**284-311**

JMJD6 Antibody (C-term) - Additional Information

Gene ID 23210

Other Names
Bifunctional arginine demethylase and lysyl-hydroxylase JMJD6, 11411-, Histone arginine demethylase JMJD6, JmjC domain-containing protein 6, Jumonji domain-containing protein 6, Lysyl-hydroxylase JMJD6, Peptide-lysine 5-dioxygenase JMJD6, Phosphatidylserine receptor, Protein PTDSR, JMJD6, KIAA0585, PTDSR

Target/Specificity
This JMJD6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 284-311 amino acids from the C-terminal region of human JMJD6.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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
JMJD6 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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JMJD6 Antibody (C-term) - Protein Information

Name JMJD6 (HGNC:19355)

Function Dioxygenase that can both act as a arginine demethylase and a lysyl-hydroxylase (PubMed:17947579, PubMed:20684070, PubMed:21060799, PubMed:22189873, PubMed:24498420). Acts as a lysyl-hydroxylase that catalyzes 5-hydroxylation on specific lysine residues of target proteins such as U2AF2/U2AF65 and LUC7L2. Regulates RNA splicing by mediating 5-hydroxylation of U2AF2/U2AF65, affecting the pre-mRNA splicing activity of U2AF2/U2AF65 (PubMed:19574390). Hydroxylates its own N-terminus, which is required for homooligomerization (PubMed:22189873). Plays a role in the regulation of nucleolar liquid- liquid phase separation (LLPS) by post-translationally modifying LIAT1 at its lysine-rich domain which inhibits LIAT1 nucleolar targeting (By similarity). In addition to peptidyl-lysine 5-dioxygenase activity, may act as an RNA hydroxylase, as suggested by its ability to bind single strand RNA (PubMed:20679243, PubMed:29176719). Also acts as an arginine demethylase which preferentially demethylates asymmetric dimethylation (PubMed:17947579, PubMed:24360279, PubMed:24498420). Demethylates histone H3 at 'Arg-2' (H3R2me) and histone H4 at 'Arg-3' (H4R3me), including mono-, symmetric di- and asymmetric dimethylated forms, thereby playing a role in histone code (PubMed:17947579, PubMed:24360279). However, histone arginine demethylation may not constitute the primary activity in vivo (PubMed:17947579, PubMed:21060799, PubMed:22189873). In collaboration with BRD4, interacts with the positive transcription elongation factor b (P-TEFb) complex in its active form to regulate polymerase II promoter-proximal pause release for transcriptional activation of a large cohort of genes. On distal enhancers, so called anti-pause enhancers, demethylates both histone H4R3me2 and the methyl cap of 7SKsnRNA leading to the dismissal of the 7SKsnRNA:HEXIM1 inhibitor complex. After removal of repressive marks, the complex BRD4:JMJD6 attract and retain the P-TEFb complex on chromatin, leading to its activation, promoter-proximal polymerase II pause release, and transcriptional activation (PubMed:24360279). Demethylates other arginine methylated- proteins such as ESR1 (PubMed:24498420). Has no histone lysine demethylase activity (PubMed:21060799). Required for differentiation of multiple organs during embryogenesis. Acts as a key regulator of hematopoietic differentiation: required for angiogenic sprouting by regulating the pre-mRNA splicing activity of U2AF2/U2AF65 (By similarity). Seems to be necessary for the regulation of macrophage cytokine responses (PubMed:15622002).

Cellular Location
Nucleus, nucleoplasm. Nucleus, nucleolus. Cytoplasm. Note=Mainly found throughout the nucleoplasm outside of regions containing heterochromatic DNA, with some localization in nucleolus. During mitosis, excluded from the nucleus and reappears in the telophase of the cell cycle.

Tissue Location
Highly expressed in the heart, skeletal muscle and kidney. Expressed at moderate or low level in brain, placenta, lung, liver, pancreas, spleen, thymus, prostate, testis and ovary. Up- regulated in many patients with chronic pancreatitis. Expressed in nursing thymic epithelial cells.

JMJD6 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

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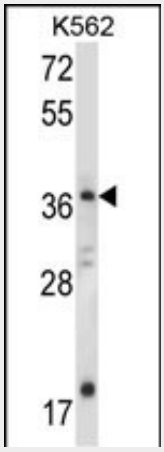
- Flow Cytomety
- Cell Culture

JMJD6 Antibody (C-term) - Images



JMJD6 Antibody (C-term) (Cat. #AP14160b) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the JMJD6 antibody detected the JMJD6 protein (arrow).

JMJD6 Antibody (C-term) - Background

This gene encodes a nuclear protein with a JmjC domain. JmjC domain-containing proteins are predicted to function as protein hydroxylases or histone demethylases. This protein was first identified as a putative phosphatidylserine receptor involved in phagocytosis of apoptotic cells; however, subsequent studies have indicated that it does not directly function in the clearance of apoptotic cells, and questioned whether it is a true phosphatidylserine receptor. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq].

JMJD6 Antibody (C-term) - References

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