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AP08460PU-N Polyclonal Antibody to SET / I2PP2A (66-81, 135-151) - Aff - Purified

Alternate names: I-2PP2A, IGAAD, Inhibitor of granzyme A-activated DNase, PHAPII, Phosphatase 2A inhibitor I2PP2A, TAF-I, Template-activating factor I

Quantity: 50 µg

Concentration: 0.5 mg/ml

Background: SET belongs to a family of multitasking protein, involved in apoptosis, transcription, nucleosome assembly and histone binding. There are two named isoforms produced by alternative splicing: Isoform 1 and Isoform 2. Isoform 2 anti-apoptotic activity is mediated by inhibition of the GZMA-activated DNase, NME1. In the course of cytotoxic T-lymphocyte (CTL)-induced apoptosis, GZMA cleaves SET, disrupting its binding to NME1 and releasing NME1 inhibition. Isoform 1 and isoform 2 are potent inhibitors of protein phosphatase 2A. Isoform 1 and isoform 2 inhibit EP300/CREBBP and PCAF-mediated acetylation of histones (HAT) and nucleosomes, most probably by masking the accessibility of lysines of histones to the acetylases. The predominant target for inhibition is histone H4. HAT inhibition leads to silencing of HAT-dependent transcription and prevents active demethylation of DNA. Both isoforms stimulate DNA replication of the adenovirus genome complexed with viral core proteins; however, isoform 2 specific activity is higher. Isoform 1 and isoform 2 interact directly with each other and with ANP32A within the tripartite INHAT (inhibitor of acetyltransferases) complex. A chromosomal aberration involving SET is found in some cases of acute undifferentiated leukemia (AUL). Translocation t(6;9)(q21;q34.1) with NUP214/CAN.

Uniprot ID: H0UI37

NCBI: NP_001116293.1

GeneID: 100130890

Host / Isotype: Rabbit / IgG

Immunogen: A mixture of synthetic peptides corresponding to amino acids 66-81 and 135-151 of Human INHAT-1.

AA Sequence:
SET / TAF-I antibody was raised against synthetic peptides of amino acids 66-81 (PFFQKRSELIAKIPNF) and 135-151 (ENKVLSKEFHLNESGDP) of human INHAT-1.

Remarks: Sequence homology is 100% in Mouse and Rat. Percent identity by BLAST analysis: Human, Monkey, Marmoset, Mouse, Rat, Hamster, Elephant, Panda, Bovine, Horse, Pig, Opossum, Turkey, Chicken, Platypus, Xenopus, Salmon, Pufferfish, Zebrafish (100%); Gorilla, Stickleback (94%); Dog (88%).

Format: **State:** Liquid purified Ig fraction.
Purification: Protein G Chromatography.
Buffer System: PBS containing 0.1 mg/ml BSA as stabilizer and 0.02% Sodium Azide as preservative.

Applications:

Immunohistochemistry on Paraffin Sections: 10 µg/ml.
Western Blot: 1 - 2 µg/ml.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

This antibody recognizes SET/I2PP2A.

Species Reactivity:

Tested: Human.
Expected from sequence similarity: Mouse, Rat, Bovine, Chicken, Xenopus, Hamster, Horse, Monkey, Pig, Zebrafish

Storage:

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Pictures:

Skin: Formalin-Fixed Paraffin-Embedded (FFPE)