

AP15906PU-N**Polyclonal Antibody to SET / I2PP2A (N-term) - 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:

0.1 mg

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:

[H0UJ37](#)

NCBI:

[NP_003002.2](#)

GeneID:

[100130890](#)

Host:

Goat

Immunogen:

Peptide from the N Terminus of the protein sequence according to NP_003002.2

Genename: SET

AA Sequence:

SAPAAKVSKKELNS-C

Format:

State: Liquid purified Ig fraction.

Purification: Ammonium Sulphate Precipitation followed by antigen Affinity Chromatography using the immunizing peptide

Buffer System: Tris saline, pH 7.3 containing 0.02% Sodium Azide as preservative and 0.5% BSA as stabilizer.

Applications:

Peptide ELISA: 1/1000 (Limit Dilution).

Western blot: 0.3-1 µg/ml. Approx 38kDa band observed in lysates of Human Kidney lysates and of cell lines Daudi and Molt4 (calculated MW of 32.1kDa according to NP_003002.2).

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

- Specificity:** This antibody is expected to recognize isoform 2 (NP_003002.2).
- Species Reactivity:** **Tested:** Human.
Expected from sequence similarity: Bovine (Cow)
- Storage:** Store 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.
- General Readings:** 1. Ruiz PA, Kim SC, Sartor RB, Haller D. 15-deoxy-delta12,14-prostaglandin J2-mediated ERK signaling inhibits gram-negative bacteria-induced RelA phosphorylation and interleukin-6 gene expression in intestinal epithelial cells through modulation of protein phosphatase 2A activity. J Biol Chem. 2004 Aug 20;279(34):36103-11. Epub 2004 Jun 15. PubMed PMID: 15199053.
- Pictures:** TA302603 staining (2µg/ml) of Human Kidney extracts (RIPA buffer, 35µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

