

SET Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14581a

Specification

SET Antibody (N-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	O01105
Other Accession	O63945 , O9EQU5 , P53997 , NP_001116293.1 , NP_003002.2
Reactivity	Human
Predicted	Drosophila, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	33489
Antigen Region	47-75

SET Antibody (N-term) - Additional Information

Gene ID 6418

Other Names

Protein SET, HLA-DR-associated protein II, Inhibitor of granzyme A-activated DNase, IGAAD, PHAPII, Phosphatase 2A inhibitor I2PP2A, I-2PP2A, Template-activating factor I, TAF-I, SET

Target/Specificity

This SET antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 47-75 amino acids from the N-terminal region of human SET.

Dilution

WB~~1:1000
IHC-P~~1:10~50

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

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

SET Antibody (N-term) - Protein Information

Name SET

Function Multitasking protein, involved in apoptosis, transcription, nucleosome assembly and histone chaperoning. 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.

Cellular Location

Cytoplasm, cytosol. Endoplasmic reticulum. Nucleus, nucleoplasm. Note=In the cytoplasm, found both in the cytosol and associated with the endoplasmic reticulum. The SET complex is associated with the endoplasmic reticulum. Following CTL attack and cleavage by GZMA, moves rapidly to the nucleus, where it is found in the nucleoplasm, avoiding the nucleolus. Similar translocation to the nucleus is also observed for lymphocyte-activated killer cells after the addition of calcium

Tissue Location

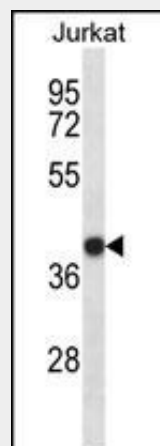
Widely expressed. Low levels in quiescent cells during serum starvation, contact inhibition or differentiation. Highly expressed in Wilms' tumor

SET Antibody (N-term) - Protocols

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

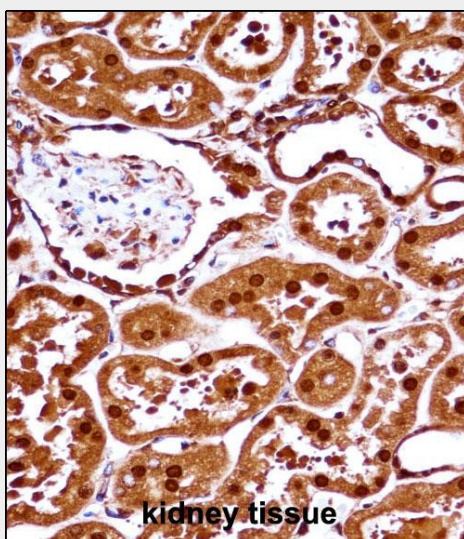
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SET Antibody (N-term) - Images



SET Antibody (N-term) (Cat. #AP14581a) western blot analysis in Jurkat cell line lysates

(35ug/lane). This demonstrates the SET antibody detected the SET protein (arrow).



SET Antibody (N-term) (AP14581a) immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of SET Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

SET Antibody (N-term) - Background

Multitasking protein, involved in apoptosis, transcription, nucleosome assembly and histone binding. 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.

SET Antibody (N-term) - References

Kim, D.W., et al. *Biochem. Biophys. Res. Commun.* 400(3):419-425(2010)
Chao, A., et al. *Cancer Lett.* 291(1):99-107(2010)
Jugessur, A., et al. *PLoS ONE* 5 (7), E11493 (2010) :
Samanta, A.K., et al. *Oncogene* 28(14):1669-1681(2009)
Kajiwara, Y., et al. *PLoS ONE* 4 (4), E5071 (2009) :