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SET Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14581a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q01105
Other Accession	Q63945, Q9EQU5, P53997, NP_001116293.1, NP_003002.2
Reactivity	Human
Predicted	Drosophila, Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34560
Calculated MW	33489
Antigen Region	47-75

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~~1:100~500 E~~Use at an assay dependent concentration.
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.

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

Background

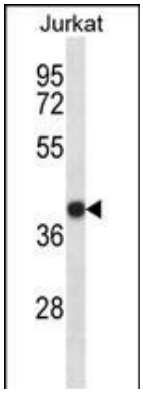
Multitasking protein, involved in apoptosis, transcription, nucleosome assembly and histone binding. Isoform 2 anti-apoptotic activity is mediated by inhibition of the GZMA-activated DNase, NME1. In the course of cytotoxic T-lymphocyte (CTL)-induced apoptosis, GZMA cleaves SET, disrupting its binding 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.

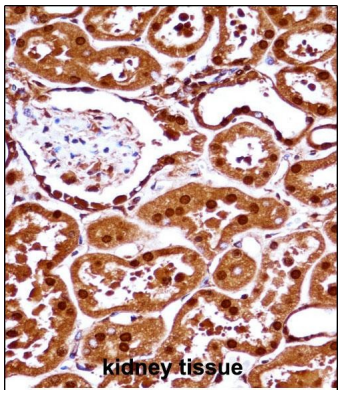
References

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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) :

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.

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