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SUMO4 Antibody (V55 Mutant)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1264b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q6EEV6
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	10653

Additional Information

Gene ID	387082
Other Names	Small ubiquitin-related modifier 4, SUMO-4, Small ubiquitin-like protein 4, SUMO4, SMT3H4
Target/Specificity	This SUMO4 antibody is generated from rabbits immunized with a KLH conjugated peptide CEPRGLS(V)KQIRFRFG selected from human SUMO4. This antibody is affinity purified using peptides CEPRGLS(V)KQIRFRFG (positive selection) and CEPRGLS(M)KQIRFRFG (negative selection).
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	SUMO4 Antibody (V55 Mutant) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SUMO4
Synonyms	SMT3H4
Function	Ubiquitin-like protein which can be covalently attached to target lysines as a monomer. Does not seem to be involved in protein degradation and may modulate protein subcellular localization, stability or activity. Upon oxidative stress, conjugates to various anti-oxidant enzymes, chaperones, and stress

	defense proteins. May also conjugate to NFKBIA, TFAP2A and FOS, negatively regulating their transcriptional activity, and to NR3C1, positively regulating its transcriptional activity. Covalent attachment to its substrates requires prior activation by the E1 complex SAE1-SAE2 and linkage to the E2 enzyme UBE2I.
Tissue Location	Expressed mainly in adult and embryonic kidney. Expressed at various levels in immune tissues, with the highest expression in the lymph node and spleen.

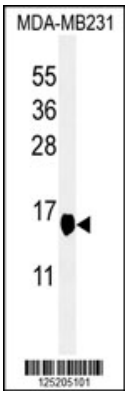
Background

SUMO4 is a member of the SUMO gene family. This family of small ubiquitin-related modifiers covalently modify target lysines in proteins and control the target proteins' subcellular localization, stability, or activity. Upon oxidative stress, SUMO4 conjugates to various anti-oxidant enzymes, chaperones, and stress defense proteins. This protein may also conjugate to NFKBIA, TFAP2A and FOS, negatively regulating their transcriptional activity, and to NR3C1, positively regulating its transcriptional activity. Covalent attachment to SUMO4 substrates requires prior activation by the E1 complex SAE1-SAE2 and linkage to the E2 enzyme UBE2I. In contrast to SUMO1, SUMO2 and SUMO3, SUMO4 seems to be insensitive to sentrin-specific proteases due to the presence of Pro-90. This may impair processing to mature form and conjugation to substrates. SUMO4 is located in the cytoplasm and specifically modifies IKBA, leading to negative regulation of NF-kappa-B-dependent transcription of the IL12B gene. The M55V substitution has been associated with type I diabetes.

References

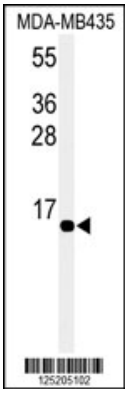
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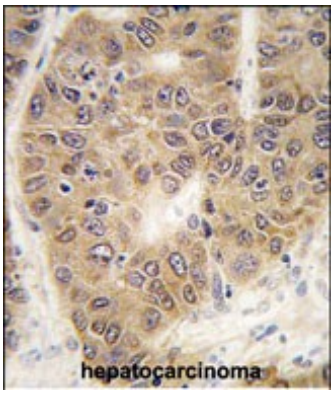
Images



Western blot analysis of hSUMO4-M55 WT specific (RB25205) in MDA-MB231 cell line lysates (35ug/lane).SUMO4-M55 (arrow) was detected using the purified Pab.

Western blot analysis of hSUMO4-M55 WT specific (RB25205) in MDA-MB435 cell line lysates (35ug/lane).SUMO4-M55 (arrow) was detected using the purified Pab.





Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with SUMO4 antibody (V55 Mutant) (Cat.#AP1264b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.