

# SUMO4 Antibody (M55 Wild type)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1264a

## Product Information

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<b>Application</b>	WB, IHC-P, E
<b>Primary Accession</b>	<a href="#">Q6EEV6</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Calculated MW</b>	10653
<b>Antigen Region</b>	34-63

## Additional Information

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<b>Gene ID</b>	387082
<b>Other Names</b>	Small ubiquitin-related modifier 4, SUMO-4, Small ubiquitin-like protein 4, SUMO4, SMT3H4
<b>Target/Specificity</b>	This SUMO4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 34-63 amino acids from human SUMO4.
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	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.
<b>Precautions</b>	SUMO4 Antibody (M55 Wild type) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	SUMO4
<b>Synonyms</b>	SMT3H4
<b>Function</b>	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.

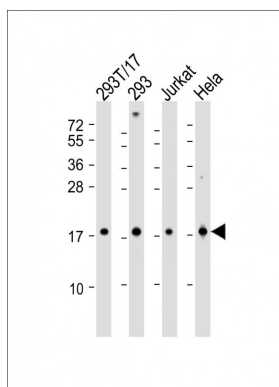
## Background

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

- Park,Y., et al. Nat. Genet. 37 (2), 112 (2005)  
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Yang, S.H., et al., Mol. Cell 13(4):611-617 (2004).  
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## Images



All lanes : Anti-SUMO4 Antibody (M55 Wild type) at 1:2000 dilution Lane 1: 293T-17 whole cell lysate Lane 2: 293 whole cell lysate Lane 3: Jurkat whole cell lysate Lane 4: HeLa whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 17 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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