Datasheet for ABIN107152

anti-SUMO antibody

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Overview

Quantity:	500 µg
Target:	SUMO
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SUMO antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP)

Product Details

Immunogen:	This purified antibody was prepared from rabbit serum after repeated immunizations with recombinant human SUMO protein. Immunogentype:Recombinant
Isotype:	IgG
Characteristics:	Concentration Definition: by UV absorbance at 280 nm

Target Details

Target:	SUMO
Abstract:	SUMO Products
Background:	Covalent modification of cellular proteins by the ubiquitin-like modifier SUMO (small ubiquitin-like modifier) regulates various cellular processes, such as nuclear transport, signal transduction, stress responses and cell cycle progression. But, in contrast to ubiquination,

Target Details

	sumoylation does not tag proteins for degradation by the 26S proteasome, but rather seems to enhance stability or modulate their subcellular compartmentalization. Ubiquitin-like proteins fall into two classes: the first class, ubiquitin-like modifiers (UBLs) function as modifiers in a manner analogous to that of ubiquitin. Examples of UBLs are SUMO, Rub1 (also called Nedd8), Apg8 and Apg12. Proteins of the second class include parkin, RAD23 and DSK2, are designated ubiquitin-domain proteins (UDPs). These proteins contain domains that are related to ubiquitin but are otherwise unrelated to each other. In contrast to UBLs, UDPs are not conjugated to other proteins. Once covalently attached to cellular targets, SUMO regulates protein:protein and protein:DNA interactions, as well as localization and stability of the target protein. Sumoylation occurs in most eukaryotic systems, and SUMO is highly conserved from yeast to humans. Where invertebrates have only a single SUMO gene termed SMT3, three members of the SUMO family have been identified in Synonyms: GAP modifying protein 1 antibody, GMP 1 antibody, GMP1 antibody, PIC 1 antibody, PIC1 antibody, SENP2 antibody, Sentrin 1 antibody, Sentrin antibody, Small ubiquitin related modifier 1 antibody
Gene ID:	7341
UniProt:	P63165

Application Details

Application Notes:	This purified polyclonal antibody reacts with human SUMO by western blot and ELISA. Although not tested, this antibody is likely functional in immunohistochemistry and immunoprecipitation. This antibody using the specified conditions may recognize other prominent intrinsic bands (UBLs or conjugates). Other intrinsic bands are readily detectable at lower dilutions. For immunoblotting a 1:2,000 dilution is recommended. An 11.6 kDa band corresponding to human SUMO is detected. Most human cell lysates can be used as a positive control without induction or stimulation. For ELISA a 1:4,000 to 1:20,000 dilution is recommended. Researchers should determine optimal titers for other applications.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Restore with deionized water (or equivalent)
Concentration:	5.0 mg/mL

Handling

Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C

Publications

Product cited in:

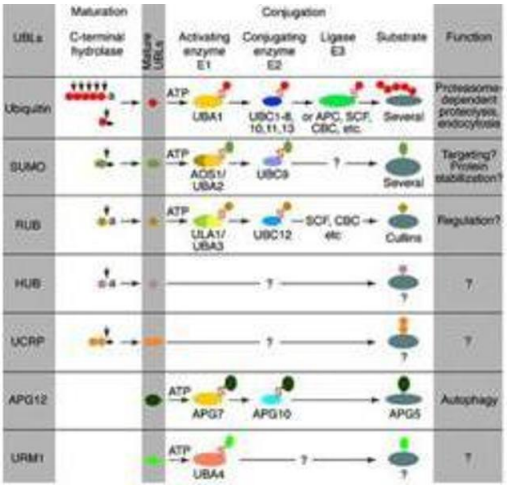
Dolezalová, Vojt?sek, Kovarík: "Epitope analysis of the human p53 tumour suppressor protein." in: **Folia biologica**, Vol. 43, Issue 1, pp. 49-51, (1997) (PubMed).

Bártková, Bártek, Lukás, Vojt?sek, Stasková, Rejthar, Kovarík, Midgley, Lane: "p53 protein alterations in human testicular cancer including pre-invasive intratubular germ-cell neoplasia." in: **International journal of cancer. Journal international du cancer**, Vol. 49, Issue 2, pp. 196-202, (1991) (PubMed).

Images

Western Blotting

Image 1. Western blot of hSUMO fusion protein. Anti-SUMO antibody, generated by immunization with recombinant human SUMO, was tested by western blot against a SUMO-GFP fusion protein after cleavage by proteases. Dilution of the antibody between 1:1,000 and 1:5,000 showed strong reactivity specifically with the SUMO portion of the fusion protein (arrowhead). In this blot the antibody was used at a 1:2000 dilution incubated overnight at 4° C in 5% non-fat dry milk in TTBS. Detection occurred using a 1:2000 dilution of HRP-labeled Donkey anti-Rabbit IgG (code # 611-703-127) for 1 hour at room temperature. A chemiluminescence system was used for signal detection (Roche). Other detection systems will yield similar results. Data contributed by M. Malakhov, www.lifesensors.com, personal communication.



Western Blotting

Image 2. Immunoblot of hSUMO fusion protein. Anti-SUMO antibody, generated by immunization with recombinant human SUMO, was tested by immunoblot against a SUMO-GFP fusion protein after cleavage by proteases. Dilution of the antibody between 1:1,000 and 1:5,000 showed strong reactivity specifically with the SUMO portion of the fusion protein (arrowhead). In this blot the antibody was used at a 1:2000 dilution incubated overnight at 4