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Product no AS08 308

SUMO1 | Small ubiquitin-like modifier protein 1

Product information

Immunogen	Recombinant proSUMO1 from *Arabidopsis thaliana* Q547B9, At4g26840 with a his tag
Host	Rabbit
Clonality	Polyclonal
Purity	Total IgG. Protein G purified in PBS pH 7.4.
Format	Lyophilized
Quantity	0,5 mg
Reconstitution	For reconstitution add 50 µl of sterile water
Storage	Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please remember to spin the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.

Application information

Recommended dilution	1 : 1000-1 : 5000 (WB)
Expected | apparent MW	10,97 | 12 kDa
Confirmed reactivity	*Arabidopsis thaliana, Oryza sativa, Solanum tuberosum*
Predicted reactivity	*Glycine max, Nicotiana tabacum, Picea sitchensis, Pisum sativum, Populus trichocarpa, Solanum lycopersicum, Zea mays* Species of your interest not listed? Contact us
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Additional information	Antibodies will also detect SUMO2 protein. Suggested extraction buffer: 100 mM Tris-HCl, pH 8.0, 0.1% [w/v] SDS, 0.5% [w/v] sodium deoxycholate, 1% [v/v] glycerol, 50 mM sodium metabisulfite, 20 mM N-ethylmaleimide (NEM) and protease inhibitor cocktail (Roche) (Orosa et al. 2018). This buffer will help to stabilize the conjugates and will help to detect any increase or decrease in conjugate accumulation using the antibodies.
Selected references	Szadeczky-Kardoss et al. (2022) Elongation factor TFIIS is essential for heat stress adaptation in plants. Nucleic Acids Res. 2022 Feb 28;50(4):1927-1950. doi: 10.1093/nar/gkac020. PMID: 35100405; PMCID: PMC8886746. Colignon et al. (2019). Dual coordination of the SUMOylation and phosphorylation pathways during the response to heat stress in Solanum tuberosum. Environmental and Experimental Botany Volume 162, June 2019, Pages 192-200. Rosa et al. (2018). Insights into the transcriptional and post-transcriptional regulation of the rice SUMOylation machinery and into the role of two rice SUMO proteases. BMC Plant Biol. 2018 Dec 12;18(1):349. doi: 10.1186/s12870-018-1547-3. Guo et al. (2017). Sumoylation stabilizes RACK1B and enhance its interaction with RAP2.6 in the abscisic acid response. Sci Rep. 2017 Mar 8;7:44090. doi: 10.1038/srep44090. Tomanov et al. (2014). Arabidopsis PIAL1 and 2 Promote SUMO Chain Formation as E4-Type SUMO Ligases and Are Involved in Stress Responses and Sulfur Metabolism. Plant Cell. 2014 Nov;26(11):4547-60. doi: 10.1105/tpc.114.131300.

Application example

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Arabidopsis thaliana total cell extract HA-proSUMO1 (HA-epitope and pro-Small Ubiquitin like MOdifier protein1 **(1)**, empty vector only **(2)**, were separated on 15% gel, SDS -PAGE and blotted on PVDF membrane. Filters were blocked in 5% milk for 1h, incubated with 1: 1 000 anti-AtSUMO1 antibody (AS08 308) for 1 h, followed by incubation with 1: 15 000 secondary anti-rabbit antibodies (1h) coupled with HRP and visualization (10 seconds exposure) with standard chemiluminescent detection reganet.

Note: signal in the empty vector lane comes from endogenous SUMO1 detected by the antibody.