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product **AS08 307** **UBQ11 | Ubiquitin (serum)**

product information

Background	Ubiquitin is a highly conserved regulatory protein expressed in all eukaryotic tissues. Originally this protein was called: Ubiquitous Immunopoietic Polypeptide. Its function is labeling of proteins for degradation through ubiquitin proteasome system (UPS).
Immunogen	Recombinant <i>Arabidopsis thaliana</i> ubq11, with N-terminal His-tag; UniProt: P0CH33 , TAIR: AT4G05050
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
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 tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.
Tested applications	Western blot (WB)
Related products	AS10 307A antt-UBQ11 Ubiquitin, affinity purified, rabbit antibody AS08 308 Anti-SUMO1 Small ubiquitin-like modifier protein 1, rabbit antibodies AS08 349 Anti-SUMO3 Small ubiquitin-like modifier protein 3, rabbit antibodies

Application information

Recommended dilution	1 : 10 000 (WB)
Expected apparent MW	8.5 kDa
Confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Hordeum vulgare</i> , <i>Nicotiana benthamina</i> , <i>Solanum lycopersicum</i>
Predicted reactivity	<i>Brachypodium distachyon</i> , <i>Brassica napus</i> , <i>Capsella rubella</i> , <i>Cochliobolus heterostrophus</i> , <i>Citrus clementina</i> , <i>Citrus sinensis</i> , <i>Coffea canephora</i> , <i>Cymbidium faberi</i> , <i>Eucalyptus grandis</i> , <i>Erythraea guttata</i> , <i>Glycine max</i> , <i>Glycine soja</i> , <i>Ipomoea batatas</i> , <i>Medicago truncatula</i> , <i>Magnaporthe oryzae</i> , <i>Nicotiana tabacum</i> , <i>Olea europaea</i> var. <i>sylvestris</i> , <i>Oryza sativa</i> , <i>Pisum sativum</i> , <i>Phaseolus vulgaris</i> , <i>Populus trichocarpa</i> , <i>Prunus persica</i> , <i>Pyrus communis</i> , <i>Ricinus communis</i> , <i>Solanum nigrum</i> , <i>Solanum tuberosum</i> , <i>Sorghum bicolor</i> , <i>Triticum aestivum</i> , <i>Theobroma cacao</i> , <i>Zea mays</i> , <i>Vitis vinifera</i>
Not reactive in	Algae
Additional information	Antibody can be used to check ubiquitination status in the whole plant extracts.
Selected references	Üstün et al. (2018) . Bacteria Exploit Autophagy for Proteasome Degradation and Enhanced Virulence in Plants. <i>Plant Cell</i> . 2018 Mar;30(3):668-685. doi: 10.1105/tpc.17.00815. Witzel et al. (2017) . A Proteomic Approach Suggests Unbalanced Proteasome Functioning Induced by the Growth-Promoting Bacterium <i>Kosakonia radicincitans</i> in <i>Arabidopsis</i> . <i>Front Plant Sci</i> . 2017 Apr 26;8:661. doi: 10.3389/fpls.2017.00661. Gorovits et al. (2017) . The six Tomato yellow leaf curl virus genes expressed individually in tomato induce different levels of plant stress response attenuation. <i>Cell Stress Chaperones</i> . 2017 Mar 21. doi: 10.1007/s12192-017-0766-0. Moshe et al. (2015) . Tomato plant cell death induced by inhibition of HSP90 is alleviated by Tomato yellow leaf curl virus infection. <i>Mol Plant Pathol</i> . 2015 May 12. doi: 10.1111/mpp.12275. Hamorsky et al. (2015) . N-Glycosylation of cholera toxin B subunit in <i>Nicotiana benthamiana</i> : impacts on host stress response, production yield and vaccine potential. <i>Sci Rep</i> . 2015 Jan 23;5:8003. doi: 10.1038/srep08003. Kong et al. (2014) . Quantitative proteomics analysis reveals that the nuclear cap-binding complex proteins

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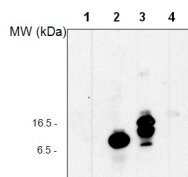
Arabidopsis CBP20 and CBP80 modulate the salt stress response. J Proteome Res. 2014 Apr 1.

[Zulet](#) et al. (2013). Proteolytic Pathways Induced by Herbicides That Inhibit Amino Acid Biosynthesis. PLoS ONE 8(9): e73847. doi:10.1371/journal.pone.0073847. (*Pisum sativum*, western blot)

[Ferrández-Ayela](#) et al. (2013). Arabidopsis TRANSCURVATA1 Encodes NUP58, a Component of the Nucleopore Central Channel. PLOS ONE, June 2013.

[Ustun](#) et al. (2013). The Xanthomonas campestris Type III Effector XopJ Targets the Host Cell Proteasome to Suppress Salicylic-Acid Mediated Plant Defence. PLOS Pathog. June 9.

Application example



5 µg of recombinant protein from *Phytophora* sp. (1), human (2), *Arabidopsis thaliana* His-tagged ubiquitin (3), *Arabidopsis thaliana* His-tagged SUMO protein (4), was separated on **15% PAA** gel and blotted on **PVDF membrane**. Filters were blocked in **5% milk** for 1h, incubated with **1: 10 000 anti-ubiquitin** antibody (1h), followed by incubation with **1: 15 000** secondary anti-rabbit antibodies(1h) coupled with HRP and visualization (10 seconds exposure) with standard chemiluminescent detection reagent.

Technical note: It is very difficult to detect ubiquitin monomers in total cell extracts due to a great abundance of poly and multi-ubiquitinated proteins. Recommended is size separation of protein extracts before gel electrophoresis focused on good resolution of region between 6-10 kDa.