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Product no AS03 035A

SPS | Sucrose phosphate synthase, global

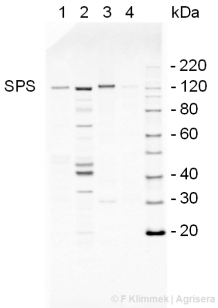
Product information

Immunogen	KLH-conjugated synthetic peptide derived from conserved region within plant SPS protein sequences, including *Arabidopsis thaliana* isoforms 1F Q94BT0, 2F, 3F and 4F. *Oryza sativa* Q67WN8, *Solanum tuberosum* Q43845
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified serum in PBS pH 7.4.
Format	Lyophilized
Quantity	50 µg
Reconstitution	For reconstitution add 25 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	120 | 120-130 kDa (fragments of 30-90 kDa may be detected)
Confirmed reactivity	*Arabidopsis thaliana, Brassica napus, Colobanthus quitensis Kunt Bartl, Hordeum vulgare, Lycopersicum esculentum, Lycopersicum penelli, Miscanthus x giganteus, Pinus strobus, Solanum tuberosum, Triticum aestivum, Pinus strobus, Zea mays*
Predicted reactivity	*Citrus sinensis, Glycine max, Nicotiana benthamiana, Nicotiana tabacum, Oryza sativa, Physcomitrium patens, Populus balsamifera, Robinia pseudoacaci, Ricinus communis, Saccharum officinarum, Solanum lycopersicum, Theobroma cacao, Vicia faba, Vitis vinifera* , Species of your interest not listed? Contact us
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Additional information	Peptide used to elicit anti-SPS antibodies is perfectly conserved in all isoforms of SPS in plants
Selected references	Bilska-Kos et al. (2020). Sucrose phosphate synthase (SPS), sucrose synthase (SUS) and their products in the leaves of Miscanthus× giganteus and Zea mays at low temperature. Planta . 2020 Jul 16;252(2):23. doi: 10.1007/s00425-020-03421-2. Chen et al. (2018). TIC236 links the outer and inner membrane translocons of the chloroplast. Nature. 2018 Dec;564(7734):125-129. doi: 10.1038/s41586-018-0713-y. Zhang et al. (2014). Heterologous expression of AtPAP2 in transgenic potato influences carbon metabolism and tuber development. FEBS Lett. 2014 Aug 27. pii: S0014-5793(14)00621-8. doi: 10.1016/j.febslet.2014.08.019.

Application example



10 µg of total leaf protein from (**1**) *A.thaliana*,(**3**) *Zea mays* and (**4**) *Hordeum vulgare* extracted with PEB (**AS08 300**) as well as **10 µg cytosolic protein** from (**2**) *A.thaliana* were separated on **4-12%** NuPage (Invitrogen) **LDS-PAGE** and blotted 1.5h (30V) to **nitrocellulose**. Filters were blocked 1h with 2% low-fat **milk powder** in TBS-T (0.1% TWEEN 20) and probed with anti-SPS (AS03 035A, **1:2000**, 1h) and secondary anti-rabbit (**1:20 000**, 1 h) antibody (HRP conjugated) in TBS-T containing 2% low fat milk powder. Antibody incubations where followed by washings in TBS-T (15, +5, +5, +5 min). All steps were performed at RT with agitation. Signal was detected with chemiluminescent detection reagent, using a Fuji LAS-3000 CCD (90s, high sensitivity).