

product **AS06 185**

SPS | sucrose phosphate synthase, maize

product information

background	SPS (sucrose phosphate synthase, EC 2.4.1.14) is the key enzyme of carbon flux into sucrose fixation in plants. It catalyzes the synthesis of sucrose-phosphate from UDP-glucose and fructose-6-phosphate predominantly in the cytosol of sucrose-source leaf tissue.
immunogen	Synthetic peptide derived from <i>Zea mays</i> SPS protein sequence (P31927).
antibody format	rabbit polyclonal total IgG in PBS pH 7.4 lyophilized
quantity	100 µl - for reconstitution add 100 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)
additional information	total IgG concentration is 3 µg/µl

application information

recommended dilution	1 : 2 000 with standard ECL (WB)
expected apparent MW	120 ~130 for <i>Zea mays</i>
confirmed reactivity	<i>Zea mays</i>
predicted reactivity	<i>Zea mays</i> and the monocots <i>Saccharum officinarum</i> , <i>Triticum aestivum</i> and <i>Oryza sativa</i>
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	to be added when available
selected references	Sparks et al. (2001) A Appl Biol 138: 33-45

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 (AS06 0185, **1:2000**, 1h) and secondary anti-rabbit (**1:20000**, 1 h) antibody (HRP conjugated, Abcam) in TBS-T containing 2% low fat milk powder. Antibody incubations were followed by washings in TBS-T (15, +5, +5, +5 min). All steps were performed at RT with agitation. Signal was detected with **standard ECL** (GE Healthcare) using a Fuji LAS-3000 CCD (90s, high sensitivity).

