

product **AS06 180**
cAPX | cytosolic ascorbate peroxidase

product information

background	Ascorbate peroxidase (APX) is the enzyme catalyzing the ascorbate-dependent reduction of hydrogen peroxide. Ascorbate (AA) plays a key role in defense against oxidative stress and is particularly abundant in fruits and photosynthetic tissues. AA is found in every compartment of the plant cell including the apoplast.
immunogen	<u>KLH</u> -conjugated peptide derived from N-terminal of <i>Zea mays</i> cytosolic APX <u>Q41772</u>
antibody format	rabbit polyclonal total IgG in PBS pH 7.4 lyophilized
quantity	200 µl for reconstitution add 200 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), immunoprecipitation (IP)
additional information	total IgG concentration is 3 µg/µl

application information

recommended dilution	1:10 000 with standard ECL (WB), 2 µg (IP)
expected apparent MW	28 kDa
confirmed reactivity	<i>Arabidopsis thaliana</i> (immunohistochemistry only) <i>D. salina</i> , <i>A. toxicaria</i> , <i>Hordeum vulgare</i> , <i>Pisum sativum</i> , <i>S. lycopersicum</i> , <i>Solanum tuberosum</i> , <i>P. silvestris</i> , <i>Zea mays</i>
predicted reactivity	dicots including: <i>Brassica juncea</i> , <i>Fragaria ananassa</i> , <i>Gossypium hirsutum</i> , <i>Nicotiana tabacum</i> , <i>Solanum tuberosum</i> , <i>Vitis vinifera</i> , monocots including: <i>Oryza sativa</i> , trees: <i>Pinus pinaster</i>
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	for western blot detection images - please check the publication below
selected references	<u>Bai</u> et al. (2011). Nitric Oxide Enhances Desiccation Tolerance of Recalcitrant <i>Antiaris toxicaria</i> Seeds via Protein S-Nitrosylation and Carbonylation. PLoS ONE. <u>Mittova</u> et al. (2004). The role of mitochondrial APX isoforms in determining sensitivity to salt stress in two tomato species, <i>Lycopersicon esculentum</i> and <i>L. pennellii</i> . Plant Cell Environ. 27: 237-250.

application example

(A) , (B)- control antibody, anti-PIN1, (C,D) immunolocalization using anti-cAPX antibodies.

Courtesy of Dr. Taras Pasternak

