

product **AS06 125**

### FeSOD | chloroplastic Fe-dependent superoxide dismutase

#### product information

<b>background</b>	Antioxidant system works as a defense against oxidative stress. SOD (superoxide dismutase) catalyzes the dismutation of superoxide into oxygen and H <sub>2</sub> O <sub>2</sub> . SODs are classified, according to their metal cofactor, as FeSOD, MnSOD, or Cu / ZnSOD. Chloroplasts generally contain Cu/ZnSOD and, in a number of plant species, FeSOD
<b>immunogen</b>	overexpressed <i>Chlamydomonas reinhardtii</i> thioredoxine fusion protein <u>A8IGH1</u> , FeSOD excised from a gel piece
<b>antibody format</b>	rabbit polyclonal serum lyophilized
<b>quantity</b>	200 µl for reconstitution add 200 µl of sterile water.
<b>storage</b>	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.
<b>tested applications</b>	western blot (WB)
<b>additional information</b>	to be added when available

#### application information

<b>recommended dilution</b>	1: 1500 to 1:5000 with alkaline phosphatase (WB)
<b>expected   apparent MW</b>	25   22 kDa
<b>confirmed reactivity</b>	<i>Armeria maritima</i> , <i>Arabidopsis thaliana</i> , <i>Chlamydomonas reinhardtii</i> , <i>Zea mays</i>
<b>predicted reactivity</b>	dicots including: <i>Glycine max</i> , <i>Solanum lycopersicum</i> , trees: <i>Pinus pinaster</i> , <i>Populus balsamifera</i> , moss: <i>Physcomitrella patens</i> , algae including: <i>Dunaliella salina</i> , <i>Volvox carteri</i>
<b>not reactive in</b>	cyanobacteria
<b>additional information</b>	The antibody will detect FeSOD enzyme only in plants grown on low Cu (0.1 µM). Reference: Salah et al (2005) Two P-type ATPases are required for copper delivery in <i>Arabidopsis thaliana</i> chloroplasts. <i>Plant Cell</i> , 17, 1233-1251
<b>selected references</b>	to be added when available

### application example

**5 µg of stromal protein** from (1) *Chlamydomonas reinhardtii* (left), (2) *Arabidopsis thaliana* were separated on SDS-PAGE. Primary antibodies have been used in 1:3000.

