 contact: support@agrisera.com

Agrisera AB | Box 57 | SE-91121 Vännas | Sweden | +46 035 33033 | www.agrisera.com

product AS06 186

gamma-ECS | gamma glutamylcysteine synthase

product information

background	**Gamma-glutamylcysteine synthase** (gamma-ECS) (EC 6.3.2.2) catalyses the first step of glutathione (GSH) synthesis, producing gamma-glutamylcysteine (gamma-EC) from L-glutamate and cysteine. In the second step, catalyzed by GSH-S, glycine is added to the C-terminal end of (gamma-EC). GSH is the predominant non-protein thiol in all nearly where it acts as an antioxidant in stress responses and as a mobile pool of reduced sulfur. It is also important in the regulation of plant growth and development.
immunogen	KLH-conjugated synthetic peptide derived from *Zea mays* gamma-ECS Q8W4W3
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), immunolocalization (IL)
additional information	total IgG concentration is 5.2 µg/ µl

application information

recommended dilution	1: 5000 with standard ECL (WB), 1: 5000 (IL)
expected | apparent MW	50 kDa
confirmed reactivity	*Nicotiana tabcum, Solanum lycopersicum, Zea mays*
predicted reactivity	dicots including:*Arabidopsis thalina, Pisum sativum*, monocots including: *Oryza sativa*, *Triticum aestivum*
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	antibodies has been used in immunolocalization on *Arabidopsis thaliana*
selected references	Gomez et al. (2004). Intercellular distribution of glutathione synthesis in maize leaves and its response to short term chilling. Plant Physiol 134: 1662-1671; Mittova et al. (2003). Co-ordinate induction of glutathione biosynthesis and glutathione-metabolising enzymes is correlated with salt tolerance in tomato. FEBS Letts. 554: 417-421.

Agrisera AB | Box 57 | SE-91121 Vännas | Sweden | +46 035 33033 | www.agrisera.com