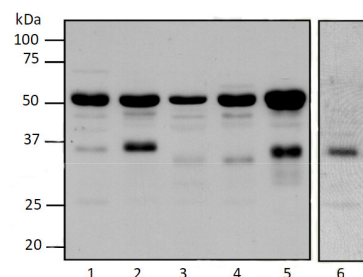


Product no **AS16 3692****PTOX | Plastid terminal oxidase****Product information**

Immunogen	Part of <i>Arabidopsis thaliana</i> recombinant plastid terminal oxidase, TAIR: At4g22260 , UniProt: Q56X52
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	100 µl
Reconstitution	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 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.
Additional information	This product can be sold containing proclin if requested

Application information

Recommended dilution	1 : 4000 (WB)
Expected apparent MW	30 37-41 kDa (<i>Arabidopsis thaliana</i>)
Confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Chlamydomonas reinhardtii</i> , <i>Hordeum vulgare</i> , <i>Nicotiana tabacum</i> , <i>Solanum lycopersicum</i> , <i>Spinacia oleracea</i>
Predicted reactivity	Higher plants Species of your interest not listed? Contact us
Not reactive in	<i>Galdieria sulphuraria</i> , <i>Phaeodactylum tricornutum</i>
Additional information	In most plants it is a minor polypeptide and consequently enrichment by analyzing membrane fractions for example is recommended
Selected references	Urban , Rogowski & Romanowska (2022), Crucial role of the PTOX and CET pathways in optimizing ATP synthesis in mesophyll chloroplasts of C3 and C4 plants, Environmental and Experimental Botany, Volume 202, October 2022, 105024, https://doi.org/10.1016/j.envexpbot.2022.105024 Pralon et al. (2020). Mutation of the Atypical Kinase ABC1K3 Partially Rescues the PROTON GRADIENT REGULATION 6 Phenotype in Arabidopsis thaliana. Front. Plant Sci., 25 March 2020 Bolte et al. (2020). Dynamics of the localization of the plastid terminal oxidase PTOX inside the chloroplast. J Exp Bot. 2020 Feb 15. pii: eraa074. doi: 10.1093/jxb/eraa074. Cournac et al. (2000b). Flexibility in photosynthetic electron transport: a newly identified chloroplast oxidase involved in chlororespiration. Philos Trans R Soc Lond B Biol Sci. 2000 Oct 29;355(1402):1447-54 Cournac et al. (2000a). Electron flow between photosystem II and oxygen in chloroplasts of photosystem I-deficient algae is mediated by a quinol oxidase involved in chlororespiration. J Biol Chem. 2000 Jun 9;275(23):17256-62.

Application example

15 µg from total protein leaf extract of *Spinacia oleracea* (1), *Arabidopsis thaliana* (2), *Solanum lycopersicum* (3), *Nicotiana tabacum* (4), *Hordeum vulgare* (5), *Arabidopsis thaliana* thylakoid fraction (6) were separated on SDS-PAGE and blotted to PVDF membrane. Incubation with primary antibody: 1: 4000 followed by chemiluminescent detection. Exposure time 2 minutes.

Cross reactivity to 52 kDa band can be eliminated by using thylakoid fraction or blocking with 10 % milk ON/4°C.