

product **AS06 149**

Tic40 | chloroplast inner envelope membrane translocon complex protein

product information

background	Tic40 is a component of the inner envelope membrane import complex (TIC) of plant chloroplasts. Tic40 has been proposed to function as a co-chaperone in the stromal chaperone complex that facilitates protein translocation across the inner membrane. Tic40 can be used as a cellular [compartment marker] for chloroplast inner envelope membrane.
immunogen	KLH-conjugated synthetic peptide derived from available plant sequences of Tic40 including <i>Arabidopsis thaliana</i> At5g16620
antibody format	rabbit polyclonal affinity purified serum, in PBS pH 7.4 lyophilized
quantity	200 µg 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	cellular [compartment marker] of chloroplast membrane

application information

recommended dilution	1 : 5000 with standard ECL (WB)
expected apparent MW	48 45 kDa (<i>Arabidopsis thaliana</i>)
confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Cucurbita pepo</i> , <i>Pisum sativum</i>
predicted reactivity	<i>Oryza sativa</i> , <i>Ricinus communis</i> , <i>Physcomitrella patens</i>
not reactive in	<i>Spinacia oleracea</i>
additional information	to be added when available
selected references	not available at the moment

application example

10 µg of total protein from (1) *Arabidopsis thaliana* leaf extracted with PEB (**AS08300**), (2) chloroplast envelopes, and (3) thylakoids were separated on **4-12%** NuPage (Invitrogen) **LDS-PAGE** and blotted 1h to **nitrocellulose**. Filters were blocked 1h with 2% low-fat **milk powder** in TBS-T (0.1% TWEEN 20) and probed with anti-Tic40 (AS06 149, **1:1000**, 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** (Invitrogen) using a Fuji LAS-3000 CCD (240s, standard sensitivity). The Tic40 signal obtained at ~45 kDa is completely quenched in a peptide-competition assay with the Tic40-peptide used for immunization. The signal at ~27 kDa is not fully quenched and arises from a thylakoid-bound cross-reaction.

