

product **AS06 150**

### Toc75 | chloroplast outer envelope membrane translocon complex OEP75 protein

#### product information

<b>background</b>	Import of protein precursors into chloroplasts occurs via translocon complexes at the outer (Toc/TOC complex) and inner (Tic/TIC complex) envelope membrane. The major components of the Toc (TOC) complex in plants are <b>Toc75</b> , Toc34 and Toc159 (formerly Toc86). Toc75 (OEP75) forms the main import pore. It is an abundant protein in the outer envelope membrane of chloroplasts from expanding tissues but it is also found in plastids of roots, stems and flowers.
<b>immunogen</b>	<u>KLH</u> -conjugated synthetic peptide conserved in available Toc75 (OPE75) sequences from monocots and dicots including <i>Arabidopsis thaliana</i> ( <a href="#">Q9STE8</a> ). The <i>Arabidopsis</i> genome contains three Toc75-related sequences, termed atTOC75-I, atTOC75-III, and atTOC75-IV with atToc75-III being the most expressed one.
<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>	Toc75 can be used as a cellular <b>[compartment marker]</b> of chloroplast outer envelope membrane.

#### application information

<b>recommended dilution</b>	1 : 1000 - 1 : 5000 with standard ECL (WB)
<b>expected   apparent MW</b>	89 kDa (with transit peptide)   75 kDa (for <i>Arabidopsis thaliana</i> )
<b>confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Oryza sativa</i> , <i>Pisum sativum</i>
<b>predicted reactivity</b>	dicots including: <i>Ricinus communis</i> , <i>Vitis vinifera</i> and <i>Populus</i> sp., monocots including <i>Zea mays</i> , <i>Physcomitrella patens</i>
<b>not reactive in</b>	no confirmed exceptions from predicted reactivity known in the

moment

**additional information** to be added when available

**selected references** to be added when available

### application example

**10 µg protein** from (1) *Arabidopsis thaliana* leaf extracted with PEB (**AS08 300**), (2) chloroplast envelope membranes, 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-Toc75 (AS06 150, **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 (300s, standard sensitivity).

