

product **AS11 1780**

IRT1 | iron regulated transporter 1

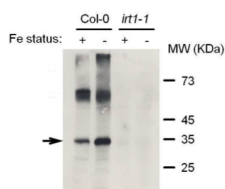
product information

background	IRT1 is a high affinity iron transporter that plays a key role in the uptake of iron (in rhizosphere across the plasma membrane in the root epidermal layer) as well as mediates the heavy metals uptake under iron-deficiency. Is a principal regulator of iron homeostasis in plants. Synonyms: Fe(2+) transport protein 1, Fe(II) transport protein 1.
immunogen	<u>KLH</u> -conjugated synthetic peptide derived from <i>Arabidopsis thaliana</i> IRT1 sequence, <u>Q38856</u> , <u>At4g19690</u>
antibody format	rabbit polyclonal affinity purified serum lyophilized
quantity	100 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. This antibody can be stored in a solution containing 50 % glycerol, final concentration. 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)
related products	<u>antibody collection for proteins involved in response to environmental stress</u>
additional information	to be added when available

application information

recommended dilution	1 : 5000 with standard ECL (WB)
expected apparent MW	36.7 kDa
confirmed reactivity	<i>Arabidopsis thaliana</i>
predicted reactivity	<i>Noccaea caerulea</i> , <i>Thlaspi caerulescens</i>
not reactive in	no confirmed exceptions from predicted reactivity are currently known
additional information	to be added when available
selected references	<u>Selote</u> et al. (2014). Iron-binding E3 ligase mediates iron response in plants by targeting bHLH transcription factors. Plant Physiol. 2014 Dec 1. pii: pp.114.250837. <u>Ivanov</u> et al. (2014). SORTING NEXIN1 Is Required for Modulating the Trafficking and Stability of the <i>Arabidopsis</i> IRON-REGULATED TRANSPORTER1. Plant Cell. 2014 Mar 4.

application example



5 µg of total protein from *Arabidopsis thaliana* wild type (Col-0) and IRT1 mutant (irt1-1) extracted with SDG buffer (62 mM Tris-HCL pH 8.6, 2.5 % SDS, 2 % dithiothreitol, 10 % glycerol) were separated on 15 % SDS-PAGE and blotted 1h to **nitrocellulose**. Blots were blocked with 5 % milk in TBST for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 5 000 for 1h at RT with agitation in TBST with 2.5 % milk. The antibody solution was decanted and the blot was rinsed briefly three times, then washed once for 10 min in TBST at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Agrisera, [AS09 602](#)) diluted to 1:10 000 in for 1h at RT with agitation. The blot was washed as above and developed for 5 min with ECL according to the manufacturers instructions. Exposure time was 3 seconds.

Iron-sufficient medium contained 50 µM Fe, +Fe condition, iron-deficient medium 0 µM Fe, -Fe condition.

Courtesy Dr. Petra Bauer and Dr. Rumen Ivanov, Saarland University, Germany