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Product no AS20 4391

PGDH3 | Phosphoglycerate dehydrogenase 3 (chloroplastic)

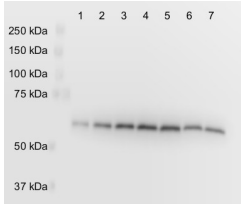
Product information

Immunogen	Recombinant, full length PGDH3 of *Arabidopsis thaliana*, overexpressed in *E.coli* with terminal His-tag UniProt: Q9LT69 TAIR: At3g19480
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
Reconstitution	For reconstitution add 50 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.

Application information

Recommended dilution	1 : 3000 (WB)
Expected | apparent MW	62,1 | 55-60 kDa
Confirmed reactivity	*Arabidopsis thaliana, Nicotiana benthamiana*
Predicted reactivity	*Acer yangbiense, Actinidia chinensis, Arachis hypogaea, Brassica campestris, Brassica napus, Brassica oleracea, Cajanus cajan, Capsella rubella, Cucumis melo, Cucumis sativus, Daucus carota, Eutrema salsugineum, Fagus sylvatica, Glycine max, Gossypium hirsutum, Lupinus angustifolius, Nicotiana tabacum, Noccaea caerulescens, Malus domestica, Mucuna pruriens, Nyssa sinensis, Ricinus communis, Theobroma cacao, Trema orientale, Vigna unguiculata*
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Additional information	Beside PGDH3 the antibody is recognizing in *Arabidopsis thaliana* PGDH1, UniProt: O49485-1 and PGDH2, UniProt: O04130-2
Selected references	Höhner et al. (2021) Stromal NADH supplied by PHOSPHOGLYCERATE DEHYDROGENASE3 is crucial for photosynthetic performance. Plant Physiology. 2021. kiaa117, https://doi.org/10.1093/plphys/kiaa117

application example



Lane: 1: 0.5 mg tissue wild type 2: 1 mg tissue wild type 3: 1.5 mg tissue wild type 4: 2 mg tissue wild type 5: 2.5 mg tissue wild type 6: 2.5 mg tissue pgdh3-1 (PGDH3 knockout) 7: 2.5 mg tissue pgdh3-2 (PGDH3 knockout) Remaining signal in lanes 6 and 7 is from the other two isoforms of the enzyme that were not knocked out. *Arabidopsis thaliana* tissue was frozen with liquid nitrogen and ground to a fine powder with mortar and pestle. Protein was extracted by mixing with extraction buffer (200 mM tris pH 8.0, 4% sodium dodecyl sulfate) to 0.5 grams fresh weight/mL and heating at 90°C for 10 min. Insoluble debris was removed by centrifuging at 21,000 x g for 1 minute. The supernatant was removed and mixed with equal volume 2x SDS-PAGE sample buffer. Samples were loaded on an 8% acrylamide gel. 20 mA were applied through the gel until the dye front ran off the bottom of the gel. Contents of the gel were electroblotted onto nitrocellulose (0.2 µm pore size) with 70 V for 45 minutes using a Biorad tank (wet) transfer system. The blot was blocked for 10 minutes at room temperature in tris buffered saline with 0.5% tween (TBST) plus 5% fat free powdered milk (blocking buffer). The blot was incubated with the anti-AtPGDH3 antibodies diluted in blocking buffer at 1:3000 overnight at 4°C while gently rocking at 75 rpm. The blot was rinsed with TBST 3 times for 5 minutes each. The blot was incubated with HRP conjugated goat anti-rabbit secondary antibody (from Proteintech) diluted 1:25000 in TBST for 2 h at room temperature while gently rocking at 75 rpm. The blot was rinsed 3 times for 20 minutes each. The blots were developed with chemiluminescent detection reagent for 5 minutes. The signal was collected using a Li-Cor C-DiGit Blot Scanner using the standard sensitivity setting.

Remaining signal in lanes 6 - 8 is from the other two isoforms of the enzyme that were not knocked out.

Courtesy of Dr. Philip Day, Kunz Lab, Washington State University, USA