product AS14 2829
UAGPase | UDP-GlcNAc pyrophosphorylase

product information

Background UAGPase (UDP-GlcNAc pyrophosphorylase) is involved in the biosynthesis of UDP-glucosamine, an essential precursor for glycoprotein and glycolipid synthesis and is also used for regulatory protein modification in signaling pathways. The enzyme is localized in a cytoplasm. Alternative names: N-acetylglucosamine-1-phosphate uridylyltransferase 2, UDP-N-acetylgalactosamine diphosphorylase 2, UTP-glucose-1-phosphate uridylyltransferase 2, AGX.

Immunogen His-tagged full length recombinant UAGPase of Arabidopsis thaliana, overexpressed and purified from E.coli, UniProt:O64765, TAIR:AT2G35020. Sequence used for immunization is conserved in both isoforms: UDP-N-acetylglucosamine diphosphorylase 1 (Q940S3) and (O64765).

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 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 collection of antibodies to carbohydrate metabolism

recommended secondary antibody

Plant protein extraction buffer

Secondary antibodies

Application information

Recommended dilution 1: 10 000 with ECL (WB)

Expected | apparent MW 55.76 kDa

Confirmed reactivity Arabidopsis thaliana, Hordeum vulgare, Nicotiana tabacum

Predicted reactivity Glycine soja, Medicago truncatula, Morus notabilis, Populus trichocarpa, Theobroma cacao, Zea mays, for more species, please inquire

Not reactive in no confirmed exceptions from predicted reactivity known in the moment

Additional information This antibody is recognizing recombinant UAGPase at 0.25 pmol.

10 µg of total protein from Arabidopsis thaliana leaf (1), Hordeum vulgare leaf (2), Nicotiana tabacum (3), and recombinant UGPase 0.25 pmol (R), were extracted with Protein Extraction Buffer PEB (AS08 300). Samples were diluted with 1X sample buffer (NuPAGE LDS sample buffer (Invitrogen) supplemented with 50 mM DTT and heat at 70°C for 5 min and kept on ice before loading. Protein samples were separated on 4-12% Bolt Plus gels, LDS-PAGE and blotted for 70 minutes to PVDF using tank transfer. Blots were blocked immediately following transfer in 2% blocking reagent (GE RPN 2125; Healthcare) or 5% non-fat milk dissolved in 20 mM Tris, 137 mM sodium chloride pH 7.6 with 0.1% (v/v) Tween-20 (TBS-T) for 1h at room temperature with agitation. Blots were incubated in the primary antibody at a dilution of 1: 10 000 (in blocking reagent) for 1h at room temperature with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, and then washed 1x15 min and 3x5 min with TBS-T at room temperature with agitation. Blots were incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, recommended secondary antibody AS09 602, Agrisera) diluted to 1:25 000 in blocking reagent for 1h at room temperature with agitation. The blots were washed as above. The blot was developed for 5 min with detection reagent according the manufacturers instructions. Images of the blots were obtained using a CCD imager (VersaDoc MP 4000) and Quantity One software (Bio-Rad). Exposure time was 10 seconds for recombinant UAGpase and 1 minute for plant extracts.