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Product no AS15 2894

GAPC1/2 | Glyceraldehyde-3-phosphate dehydrogenase (cytosolic)

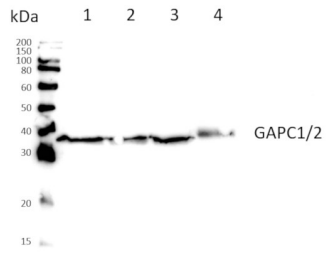
Product information

Immunogen	KLH-conjugated synthetic peptide derived from *Arabidopsis thaliana* GAPC1 and GAPC2 proteins, UniProt: P25858, Q9FX54
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified serum in PBS pH 7.4.
Format	Lyophilized
Quantity	50 µg
Reconstitution	For reconstitution add 50 µl of sterile water
Storage	Store at 4°C; make aliquots to avoid working with a stock. 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 : 1000 (WB)
Expected | apparent MW	37 kDa
Confirmed reactivity	*Arabidopsis thaliana, Synechocystis* sp. PCC 6803
Predicted reactivity	*Anthurium amnicola, Andrographis paniculata, Arachis ipaensis, Beta vulgaris, Brassica napus, Brassica olerace, Cajanus caja, Camelina sativa, Capsella rubella, Capsicum annuum, Carthamus tinctorius, Chlamydomonas reinhardtii, Cucumis sativus, Daucus carota, Elettaria cardamomum, Eleutherococcus senticosus, Eucalyptus grandis, Glycine max, Gymnadenia conopsea, Hordeum vulgare, Jatropha curcas, Mangifera indica, Malus domestica, Manihot esculenta, Medicago truncatula, Mikania micrantha, Nicotiana benthamiana, Oryza sativa, Phaseolus vulgaris, Prunus persica, Raphanus sativus, Rosmarinus officinalis, Salvia officinalis, Solanum lycopersicum, Solanum tuberosum, Spinacia oleracea, Tamarix hispida, Tarenaya hassleriana, Theobroma cacao, Triticum monococcum, Triticum aestivum, Ulmus pumila, Vaccinium uliginosum, Vigna radiata, Vitis vinifera, Zostera marina* Species of your interest not listed? Contact us
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Additional information	Use of this antibody as a loading control should be supported with specific experimental data
Selected references	Luo et al. (2024). Arabidopsis cyclophilins direct intracellular transport of mobile mRNA via organelle hitchhiking. Nat Plants. 2024 Jan;10(1):161-171. Lee et al. (2023).Three consecutive cytosolic glycolysis enzymes modulate autophagic flux. Plant Physiol. 2023 Oct 26;193(3):1797-1815. doi: 10.1093/plphys/kiad439. Zhu et al. (2020). The RALF1-FERONIA Complex Phosphorylates eIF4E1 to Promote Protein Synthesis and Polar Root Hair Growth. Mol Plant. 2020 May 4;13(5):698-716. doi: 10.1016/j.molp.2019.12.014..

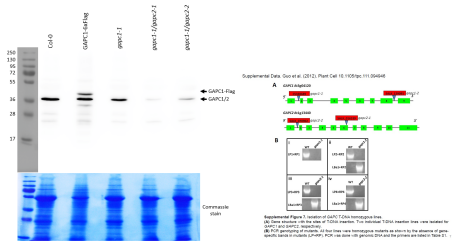
Application examples



Samples:
1 – *Synechocystis* sp. PCC 6803 wild type, 10 µg total protein extract
2 – *Synechocystis* cp12 mutant, 10 µg total protein extract
3 – *Synechocystis* gap1 mutant, 10 µg total protein extract
4 – *Arabidopsis thaliana* wildtype, 10 µg whole leaf extract

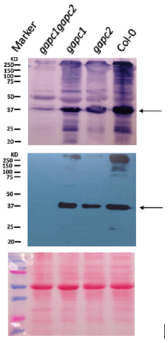
10 µg of total protein extracted freshly from *Synechocystis* sp. PCC 6803 with 1x PBS. Buffer components: 137 mM NaCl, 10 mM Na2HPO4*2H2O, 2 mM KH2PO4, 2,7 mM KCl, pH 7.4. 10 µg of whole leaf extract extracted from *Arabidopsis thaliana*. Extraction buffer components: 50 mM HEPES, 10 mM NaCl, 5mM $MgCL_2$*$6H_2O$, 100 mM Sorbitol, pH 7.6. Denatured at 95°C for 5 minutes with 3x Laemmli buffer, components: 150mM Tris-HCl (pH 6.8), 300 mM DTT, 6% SDS, 0.3% bromophenol blue, 30% glycerol. Samples were separated on 12% SDS-PAGE and blotted 90 minutes to PVDF membrane, using semi-dry transfer. Blot was blocked with 5% milk in 1xTBS for 1h at RT with agitation. Blot was incubated in the primary antibody at a dilution of 1:1000 with agitation in 1xTBS overnight at 4°C. The antibody solution was decanted, and the blot was rinsed twice, then washed 4 times for 10 minutes in 1xTBS at RT with agitation. Blot was incubated in matching secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated) diluted to 1:10 000 in 5% milk in 1xTBS for 2h/RT with agitation. The blot was washed as above and developed with AgriseraECLBright chemiluminescent solution. Exposure time was 10 seconds.

Courtesy of Dr. Stefan Lucius, Universität Rostock, Germany



40 µg total proteins from Arabidopsis wt, and GAPC1-6xFlag, *gapc1-1, gapac1-1/gapc2-1, and gapc1-1/gapc2-2* mutants, extracted and denatured as described by Larkin (2007), were separated on 12% SDS-PAGE and blotted 1h to PVDF using tank transfer. Blots were blocked with TBS-T buffer with 5% skimmed milk for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 1000 for overnight at 4°C with agitation in TBS-T with 2% skimmed milk. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in TBS-T at RT with agitation. Blot was incubated in secondary antibody (Goat anti-rabbit IgG horse radish peroxidase conjugated, from ZSGB-BIO, China) diluted to 1:0000 in for 1h at RT with agitation. The blot was washed as above and developed for 1 min with EasySee Western Blot Kit (TRANS™, China). Exposure time was 30 seconds.

Courtesy of Dr. Songhu Wang, Chengdu Institute of Biology, Chinese Academy of Sciences, China



50 µg of total protein from *Arabidopsis thaliana* extracted with buffer containing 50 mM Tris-HCl pH 7.5, 150 mM NaCl, 10 mM MgCl2, 5 mM EDTA, 10% glycerol, 0.1% NP-40, 0.1% protease inhibitor cocktail, and denatured by boiling for 5 min. The total proteins were separated on 10% SDS-PAGE and blotted 1h to PVDF using tank transfer. Blots were blocked with for 1 h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 10000 for 12 h at 4 0C in TBST containing 5% non-fat dry milk. The antibody solution was decanted and the blot was rinsed three times for 10 min each in TBST with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase or alkaline phosphatase conjugated) diluted to 1:10 000 in for 2 h at RT with agitation. The blot was washed as above and developed for 2 min with chemiluminescent detection reagent in extreme low femtogram range. Exposure time was 30 seconds. For alkaline phosphatase, the blot was stained with buffer (100 mM Trish pH9.5; 100 mM NaCl; 5 mM MgCl2) containing BCIP ((GoldBio) and NBT (Fischer Scientific).

Courtesy of Dr. Pradeep Kachroo, University of Kentucky, USA