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Product no AS23 4913

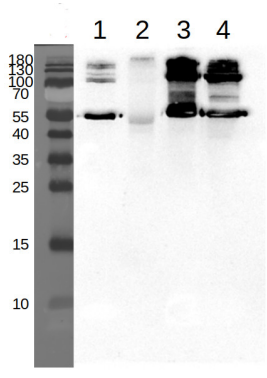
Anti-SHMT1 | Serine hydroxymethyltransferase 1, mitochondrial

Product information

Immunogen	KLH-conjugated unique peptide derived from *Arabidopsis thaliana* SHMT1 protein sequence. UniProt: **Q9SZJ5** TAIR: **AT4G37930** The peptide is not conserved in the sequence of AtSHMT2.
Host	Rabbit
Clonality	Polyclonal
Purity	Antigen affinity purified serum, in PBS pH 7.4
Format	Lyophilized
Quantity	50 µg
Reconstitution	For reconstitution add 50 µl, of sterile or deionized 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.

Application information

Recommended dilution	1 : 1000 (WB)
Expected | apparent MW	57.4 | 54 kDa (due to N-terminal or processing)
Confirmed reactivity	*Arabidopsis thaliana*
Predicted reactivity	*Brassica oleracea, Brassica rapa, Camelina sativa, Capsella rubella,Cardamine amara subsp. amara,Tarenaya hassleriana, Raphanus sativus, Vitis vinifera* Species of your interest not listed? Contact us
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Selected references	To be added when available. Antibody released in October 2024.



20 µg of crude mitochondrial extract protein from *Arabidopsis thaliana* leaves [1], (2) 10 µg of total soluble proteins from isolated mitochondria from *Solanum tuberosum* [2], (3) 10 µg of total soluble proteins from isolated mitochondria from Arabidopsis thaliana leaves, and (4) 6 µg of IMTACT isolated mesophyll mitochondrial proteins from Arabidopsis thaliana [3-4]. Proteins were separated on a reducing 12% polyacrylamide gel and blotted 1h to nitrocellulose. Membranes were blocked immediately following transfer in 5 % milk 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 gentle shaking. Membranes were incubated with the primary antibody at a dilution of 1:4000 overnight at 4°C with gentle shaking. The primary antibody solution was discarded, and the membrane was washed 3 times for 5 min in TBS-T at room temperature. The membrane was then incubated in secondary antibody (anti-rabbit IgG goat radish peroxidase conjugated, AS09 602) diluted to 1:10000 in TBS-T for 1h at room temperature with gentle shaking. The membrane was washed 3 times for 5 min in TBS-T at room temperature with gentle shaking and revealed for 5 min with chemiluminescent detection reagent according to the manufacturer's instructions (Agrisera ECL kit bright; AS16 ECL-N-100). Images of the blots were obtained using an Azure c600 Western Blot Imaging system (Azure biosystems). Exposure time was 45 seconds (standard sensitivity).

Courtesy of Drs Boussardon and Keech, Umeå Plant Science Centre, Sweden

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References:
[1] Keech O, Dizengremel P, Gardeström P (2005). Preparation of leaf mitochondria from Arabidopsis thaliana. Physiologia Plantarum 124: 403-409.
[2] Sani MA, Keech O, Gardeström P, Dufourc EJ and Gröbner G (2009). Magic Angle Phosphorus NMR of functional Mitochondria: in situ Monitoring of Lipid Response under Apoptotic-like Stress. FASEB Journal 23: 2872-2878
[3] Boussardon C, Przybyla-Toscano J, Carrie C and Keech O (2020). Tissue-Specific Isolation of Arabidopsis/plant Mitochondria - IMTACT (Isolation of Mitochondria TAgged in specific Cell Types). The Plant Journal 103:459-473
[4] Boussardon C and Keech O (2022). "Cell Type-Specific Isolation of Mitochondria in Arabidopsis." Methods Mol Biol 2363: 13-23