

Product no **AS05 075****Anti-SHMT | Serine hydroxymethyltransferase****Product information**

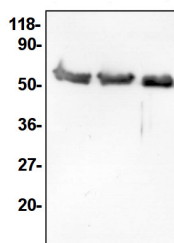
<b>Immunogen</b>	Purified SHMT protein from <i>Spinacia oleracea</i>
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Purity</b>	Total IgG. Protein G purified in PBS pH 7.4.
<b>Format</b>	Lyophilized
<b>Quantity</b>	0.5 mg
<b>Reconstitution</b>	For reconstitution add 50 µl of sterile water
<b>Storage</b>	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**

<b>Recommended dilution</b>	1: 1000 to 1 : 5 000 (WB)
<b>Expected   apparent MW</b>	53 kDa ( <i>Arabidopsis thaliana</i> )
<b>Confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Brassica oleracea</i> , <i>Citrus</i> sp., <i>Glycine max</i> , <i>Oryza sativa</i> , <i>Pisum sativum</i> , <i>Spinacia oleracea</i> , <i>Vicia faba</i>
<b>Predicted reactivity</b>	<i>Chlamydomonas reinhardtii</i> , <i>Citrus unshiu</i> , <i>Hordeum vulgare</i> , <i>Medicago truncatula</i> , <i>Nicotiana attenuata</i> , <i>Populus balsamifera</i> , <i>Ricinus communis</i> , <i>Solanum tuberosum</i> , <i>Theobroma cacao</i> , <i>Vitis vinifera</i>
	Species of your interest not listed? <a href="#">Contact us</a>
<b>Not reactive in</b>	No confirmed exceptions from predicted reactivity are currently known
<b>Additional information</b>	This antibody can be used on total leaf extracts and isolated mitochondria
<b>Selected references</b>	<p><a href="#">Hoa et al. (2024)</a>. Proteomic analysis on symbiotic differentiation of mitochondria in soybean nodules. <i>Comparative Study Plant Cell Physiol.</i> 2004 Mar;45(3):300-8. doi: 10.1093/pcp/pch035.</p> <p><a href="#">Li et al. (2021)</a> Isolation and comparative proteomic analysis of mitochondria from the pulp of ripening citrus fruit. <i>Hortic Res.</i> 2021 Feb 1;8(1):31. doi: 10.1038/s41438-021-00470-w. PMID: 33518707; PMCID: PMC7848011.</p> <p><a href="#">Guo et al. (2021)</a> The pentatricopeptide repeat protein GEND1 is required for root development and high temperature tolerance in <i>Arabidopsis thaliana</i>, <i>Biochemical and Biophysical Research Communications</i>, Volume 578, 2021, Pages 63-69, ISSN 0006-291X, <a href="https://doi.org/10.1016/j.bbrc.2021.09.022">https://doi.org/10.1016/j.bbrc.2021.09.022</a>. (<a href="https://www.sciencedirect.com/science/article/pii/S0006291X21013164">https://www.sciencedirect.com/science/article/pii/S0006291X21013164</a>)</p> <p><a href="#">Rurek et al. (2018)</a>. Mitochondrial Biogenesis in Diverse Cauliflower Cultivars under Mild and Severe Drought. Impaired Coordination of Selected Transcript and Proteomic Responses, and Regulation of Various Multifunctional Proteins, <i>Int. J. Mol. Sci.</i> 2018, 19(4), 1130; doi:10.3390/ijms19041130 (Special issue: Plant Mitochondria)</p> <p><a href="#">Rurek et al. (2018)</a>. Cold and Heat Stress Diversely Alter Both Cauliflower Respiration and Distinct Mitochondrial Proteins Including OXPHOS Components and Matrix Enzymes, <i>Int. J. Mol. Sci.</i> 2018, 19(3), 877; doi:10.3390/ijms19030877 (Special issue: Plant Mitochondria)</p> <p><a href="#">Yin et al. (2016)</a>. Comprehensive Mitochondrial Metabolic Shift during the Critical Node of Seed Ageing in Rice. <i>PLoS One.</i> 2016 Apr 28;11(4):e0148013. doi: 10.1371/journal.pone.0148013. eCollection 2016.</p>

**Application example**

kDa



30 µg of total protein from cauliflower *Brassica oleracea* var. *botrytis* mitochondrial fraction, extracted according to [Rurek et al. 2015](#) and denatured with standard 1 x conc. Sample Buffer with 2-mercaptoethanol at 80 °C for 10 min were separated on 12 % SDS-PAGE and blotted 1h to Immobilon-P using semi-dry transfer in the standard transfer buffer (20 % methanol, 48 mM Tris, 39 mM glycine, 0.0375 % SDS). Blots were blocked with 5 % skimmed milk in PBS-T with 0.01 % Tween20 for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody in 2 % skimmed milk in PBS-T in 2 % skimmed milk at a dilution of 1 : 10 000 for 1h at RT with agitation in TBS-T. 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 (anti-rabbit IgG horse radish peroxidase conjugated, [AS09 602](#), Agrisera ) diluted to 1:10 000 in PBS-T with 2 % milk, for 1h at RT with agitation. The blot was washed as above and developed for min with enhanced chemiluminescence. Exposure time was 5 s.

Courtesy of Michal Rurek, D.Sc., Adam Mickiewicz University, Poznań (Poland)