Agrisera
Part of Olink® Group

This product is **for research use only** (not for diagnostic or therapeutic use) **contact: support@agrisera.com**

Agrisera AB | Box 57 | SE-91121 Vännäs | Sweden | +46 (0)935 33 000 | www.agrisera.com

Product no AS13 2682

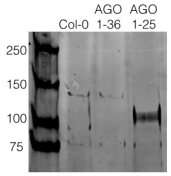
Anti-AGO2 | Argonaute 2

Product information

Immunogen	KLH-conjugated synthetic peptide, derived from Arabidopsis thaliana AGO2 protein, UniProt: Q9SHF3, TAIR: AT1G31280
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified IgY in PBS pH 7.4.
Format	Lyophilized
Quantity	50 µg
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 : 250-1 : 500 (WB)
Expected | apparent MW	113 kDa
Confirmed reactivity	*Arabidopsis thaliana*
Predicted reactivity	*Capsella rubella, Solanum tuberosum* Species of your interest not listed? Contact us
Not reactive in	*Chlamydomonas reinhardtii, Medicago truncatula, Nicotiana benthamiana, Solanum lycopersicum, Zea mays*
Additional information	AGO2 protein is strongly induced by stress. AGO expression may be tissue specific and using floral tissue is recommended where most of the AGOs are expressed the highest. Use of proteasome inhibitors as MG132 can help to stabilize AGO proteins during extraction procedure. Antibody incubation should be done over night in 4°C. Use of material with enriched AGO2 levels is recommened.
Selected references	Huang et al. (2025).RH3 enhances antiviral defense by facilitating small RNA loading into Argonaute 2 at endoplasmic reticulum–chloroplast membrane contact sites. Nat Commun. 2025 Feb 25;16(1):1953. doi: 10.1038/s41467-025-57296-6. Martín-Merchán et al. (2024). Arabidopsis AGO1 N-terminal extension acts as an essential hub for PRMT5 interaction and post-translational modifications. Nucleic Acids Res . 2024 May 20:gkae387.doi: 10.1093/nar/gkae387. Clavel et al. (2021) Atypical molecular features of RNA silencing against the phloem-restricted polerovirus TuYV. Nucleic Acids Res. 2021 Nov 8;49(19):11274-11293. doi: 10.1093/nar/gkab802. PMID: 34614168; PMCID: PMC8565345. Oliver & Martinez. (2021) Accumulation dynamics of ARGONAUTE proteins during meiosis in Arabidopsis. Plant Reprod. 2021 Nov 23. doi: 10.1007/s00497-021-00434-z. Epub ahead of print. PMID: 34812935. Wang et al. (2019). The PROTEIN PHOSPHATASE4 Complex Promotes Transcription and Processing of Primary microRNAs in Arabidopsis. Plant Cell. 2019 Feb;31(2):486-501. doi: 10.1105/tpc.18.00556. Dalmadi et al. (2019). AGO-unbound cytosolic pool of mature miRNAs in plant cells reveals a novel regulatory step at AGO1 loading. Nucleic Acids Res. 2019 Aug 8. pii: gkz690. doi: 10.1093/nar/gkz690. You et al. (2019). FIERY1 promotes microRNA accumulation by suppressing rRNA-derived small interfering RNAs in Arabidopsis. Nat Commun. 2019 Sep 27;10(1):4424. doi: 10.1038/s41467-019-12379-z. (immunoprecipiation)



Agrisera
Part of Olink® Group

 contact: support@agrisera.com

Agrisera AB | Box 57 | SE-91121 Vännäs | Sweden | +46 (0)935 33 000 | www.agrisera.com

300 µg/well of *Arabidopsis thaliana* protein from wilde type and AGO1-36 knock out, AGO1 knockdown mutant (1-25) were extracted by TCA-acetone precipitation (check protocol tab) from floral tissue and saturated in 8M urea were separated on 15% SDS-PAGE (1 mm thick gel) and blotted for 1hour to 0.2 µm nitrocellulose at 100V using wet transfer system. Blots were blocked with 0.5% cold fish gelatin (buffered in TBS) for 1hr at room temp with agitation. Blot was incubated in the primary antibody at a dilution of 1:250 for an hour at RT with agitation. The blots were washed with 3X 15min TBS-TT at RT with agitation. Blots as incubated in the secondary antibody (goat anti-rabbit DyLight® 800 conjugated, AS12 2460, Agrisera) 1:5000 dilution for 30 min. at RT with agitation and washed 1X with TBSTT for 15min, 1X with TBST for 15min before scanning with the ODyssey IRD scanner.

AGO2 is enriched in AGO1 knockdown mutant, which agrees with already published data Harvey et al. (2011), PLOS One.

Courtesy of Dr. Betty Chung, University of Cambridge, United Kingdom