

Product no **AS13 2682**  
**AGO2 | Argonaute 2**

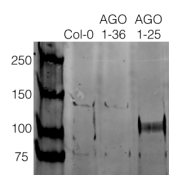
## Product information

<b>Immunogen</b>	KLH-conjugated synthetic peptide, derived from Arabidopsis thaliana AGO2 protein, UniProt: <a href="#">Q9SHF3</a> , TAIR: <a href="#">AT1G31280</a>
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Purity</b>	Immunogen affinity purified IgY in PBS pH 7.4.
<b>Format</b>	Lyophilized
<b>Quantity</b>	50 µg
<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 : 250-1 : 500 (WB)
<b>Expected   apparent MW</b>	113 kDa
<b>Confirmed reactivity</b>	<i>Arabidopsis thaliana</i>
<b>Predicted reactivity</b>	<i>Capsella rubella</i> , <i>Solanum tuberosum</i>
	Species of your interest not listed? <a href="#">Contact us</a>
<b>Not reactive in</b>	<i>Chlamydomonas reinhardtii</i> , <i>Medicago truncatula</i> , <i>Nicotiana benthamiana</i> , <i>Solanum lycopersicum</i> , <i>Zea mays</i>
<b>Additional information</b>	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 recommended.
<b>Selected references</b>	<a href="#">Clavel</a> 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. <a href="#">Oliver</a> & 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. <a href="#">Wang</a> 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. <a href="#">Dalmadi</a> 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. <a href="#">You</a> 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. (immunoprecipitation)

## Application example



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 1 hour 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