

product **AS09 527**  
**AGO1 | argonaute 1**

### product information

<b>background</b>	<b>AGO1</b> belongs to a group of argonaute proteins which are catalytic component of the RNA-encodes silencing complex (RISC). This protein complex is responsible for the gene silencing (RNAi).
<b>immunogen</b>	N-terminal peptide of <i>Arabidopsis thaliana</i> AGO1 <a href="#">Q04379</a>
<b>antibody format</b>	rabbit polyclonal affinity purified serum lyophilized
<b>quantity</b>	100 µg for reconstitution add 100 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 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.
<b>tested applications</b>	western blot (WB), immunoprecipitation (IP), immunocytochemistry (ICC)
<b>additional information</b>	antibody binds microRNA and tasiRNAs, preference for 21nt miRNAs with 5'U

### application information

<b>recommended dilution</b>	1: 5000 - 1: 10 000 (ECL Plus), 5 µg of antibody per gram of tissue (IP), 1: 100 (ICC)
<b>expected   apparent MW</b>	116.4   130 kDa
<b>confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Hyacinthus orientalis</i>
<b>predicted reactivity</b>	<i>Pisum sativum</i> , <i>Ricinus communis</i> , <i>Vitis vinifera</i>
<b>not reactive in</b>	no confirmed exceptions from predicted reactivity known in the moment
<b>additional information</b>	<p>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.</p> <p>The AGO1 antibody is extremely specific to AGO1 and does not cross-react with other antibodies. The evidence is 1) the peptide to which it was raised is at the very N-terminus of the</p>

protein and is not present in other AGOs 2) aAGO1 does not cross react with the AGOs which are overexpressed (AGO2, AGO3, AGO4, AGO5, AGO6, AGO9) using a western blot.

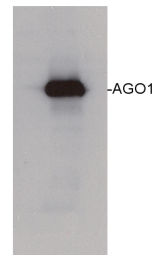
### selected references

[McCue et al. \(2012\)](#). Gene expression and stress response mediated by the epigenetic regulation of a transposable element small RNA. PLOS Genetics.

[Baumberger et al. \(2007\)](#). The poliovirus silencing suppressor PO targets ARGONAUTE proteins for degradation. Current Biology 17: 1609-1614.

### application example

80 µg of *Arabidopsis thaliana* soluble total cell extract (extracted in 20mM Tris pH7.5, 5mM MgCl<sub>2</sub>, 2.5mM DTT, 300mM NaCl, 0.1% NP-40, 1% proteaseinhibitor) was separated on 6% SDS-PAGE and blotted 1h to nitrocellulose. Filters were blocked 1h with 5% low-fat milk powder in TBS-TT (0.25% TWEEN20; 0.1% Triton-X) and probed with anti-AGO1 antibody (1:10 000, 1h) and secondary anti-rabbit (1:10000, 1 h) antibody (HRP conjugated, Santa Cruz(sc-2054)) in TBS-TT containing 5% low fat milk powder. Antibody incubations were followed by washings in TBS-TT. All steps were performed at RT with agitation. Blots were developed for 5 min with ECL-PLUS detection reagent according to the manufacturer's instructions (GE Healthcare). Exposure time was 5 seconds.



Courtesy Dr. Ericka Havecker, University of Cambridge