

Product no **AS06 136****HYL1 | Hyponastic leave phenotype ds-RNA binding protein****Product information**

Immunogen	KLH-conjugated synthetic peptide derived from <i>Arabidopsis thaliana</i> Hyl1 protein sequence UniProt: Q04492 , TAIR: At1g09700
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
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: 1000 (WB)
Expected apparent MW	45.5 kDa 68-70 kDa
Confirmed reactivity	<i>Arabidopsis thaliana</i>
Predicted reactivity	<i>Arabidopsis thaliana</i>
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Selected references	<p>Li et al. (2023). JANUS, a spliceosome-associated protein, promotes miRNA biogenesis in Arabidopsis. <i>Nucleic Acids Res.</i> 2023 Nov 22;gkad1105. doi: 10.1093/nar/gkad1105.</p> <p>Ren et al. (2020). BcpLH organizes a specific subset of microRNAs to form a leafy head in Chinese cabbage (<i>Brassica rapa</i> ssp. <i>pekinensis</i>). <i>Hortic Res.</i> 2020 Jan 1;7:1. doi: 10.1038/s41438-019-0222-7.</p> <p>Wang et al. (2019). The PROTEIN PHOSPHATASE4 Complex Promotes Transcription and Processing of Primary microRNAs in Arabidopsis. <i>Plant Cell.</i> 2019 Feb;31(2):486-501. doi: 10.1105/tpc.18.00556. (immunoprecipitation)</p> <p>Su et al. (2017). The Protein Phosphatase 4 and SMEK1 Complex Dephosphorylates HYL1 to Promote miRNA Biogenesis by Antagonizing the MAPK Cascade in Arabidopsis. <i>Dev Cell.</i> 2017 Jun 5;41(5):527-539.e5. doi: 10.1016/j.devcel.2017.05.008.</p> <p>Li et al. (2016). Intron Lariat RNA Inhibits MicroRNA Biogenesis by Sequestering the Dicing Complex in Arabidopsis. <i>PLoS Genet.</i> 2016 Nov 21;12(11):e1006422. doi: 10.1371/journal.pgen.1006422. eCollection 2016.</p> <p>Francisco-Mangilet et al. (2015). THO2, core member of the THO/TREX complex, is required for micro RNA production in Arabidopsis. <i>Plant J.</i> 2015 May 14. doi: 10.1111/tpj.12874.</p> <p>Raczynska et al. (2013). The SERRATE protein is involved in alternative splicing in Arabidopsis thaliana. <i>Nucleic Acids Res.</i> Oct 16.</p> <p>Manavella et al. (2012). Fast-Forward Genetics Identifies Plant CPL Phosphatases as Regulators of miRNA Processing Factor HYL1. <i>Cell</i> Nov 9.</p>

Application example

40 µg of total protein from *Arabidopsis thaliana* rosette leaves extracted with extraction buffer (100 mM Tris HCl, pH 7.5; 10% glycerol; 5 mM EDTA; 5 mM EGTA; 150 mM NaCl; 0.75% Triton X-100; 0.05% SDS; 1 mM DTT; 1x Complete Mini EDTA-free protease inhibitor (Roche)) were separated on 12 % SDS-PAGE using semi-dry transfer and blotted 1h to PVDF. Blots were blocked with 5% milk in TBS-T O/N at 4 °C with agitation. Blot was incubated in the primary antibody at a dilution of 1: 1 000 for 1,5 h at RT with agitation. The antibody solution was decanted and the blot was washed 3 times for 10 min in TBS-T at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Agrisera, [AS09 602](#)) diluted to 1:50 000 in for 1h at RT with agitation. The blot was washed as above and developed for 5 min with chemiluminescence detection reagent, according to the manufacturer's instructions. Exposure time was 60 seconds. There were no other bands present on this blot in applied conditions

Courtesy of Dr. Dorota Raczynska, M.Sc Agata Stepień Adam Mickiewicz University, Poland