Agrisera

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 AS07 254

HSP17.6 | Cytosolic class I heat shock protein 17.6 (rabbit antibody)

Product information

Background Hsp17.6 belongs to a family of class I of a small heat shock proteins. They are induced once a plant cells are

stressed by an increased temperature. The way small hsp proteins are protecting a living cell are not fully understood. They seem to be involved in chaperone functions by protecting other proteins from irreversible

denaturation. Small hsp function also in a late seed maturation process.

Immunogen Recombinant Arabidopsis thaliana Hsp17.6 CI (class one) P13853, At1g53540

Host

Clonality Polyclonal

> Purity Serum

Lyophilized Format

Quantity

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 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.

Tested applications Western blot (WB)

Related products AS08 284 | Anti-HSP17.6 | cytosolic class I heat shock protein 17.6, chicken antibodies

AS07 255 | Anti-HSP17.7 | cytosolic class II heat shock protein 17.7, rabbit antibodies

collection of antibodies to plant heat shock proteins

Additional information This product can be sold containing ProClin if requested

Application information

Recommended dilution 1:1000 (WB)

Expected | apparent

Confirmed reactivity

17.6 kDa

Arabidopsis thaliana, Agave tequilana var. Weber, Citrus sp., Cucumis sativus, Iris pumilla (perennial monocot),

Pinellia ternata, Pinus sylvestris, Silene vulgaris, Solanum tuberosum, Vicia faba

Predicted reactivity Higher plants, Nicotiana tabacum

Species of your interest not listed? Contact us

Not reactive in No confirmed exceptions from predicted reactivity are currently known.

Additional information There are six total class I genes. Essentially this antibody might react to some extent with all of them. But does not react with class II, organelle, or any other shsp classes. For high resolution images, please visit the specific product

page at www.agrisera.com

Selected references

Siddiqui et al. (2020). Melatonin and calcium function synergistically to promote the resilience through ROS metabolism under arsenic-induced stress. Journal of Hazardous Materials Volume 398, 5 November 2020, 122882 McLoughlin et al. (2019) HSP101 Interacts with the Proteasome and Promotes the Clearance of Ubiquitylated

Protein Aggregates. Plant Physiol. 2019 Aug;180(4):1829-1847. doi: 10.1104/pp.19.00263 Kato et al. (2019). Induction of the heat shock response in Arabidopsis by chlorinated 1,4-naphthoquinones. Plant

Growth Regul (2019). https://doi.org/10.1007/s10725-019-00477-3.

Alamri et al. (2018). Nitric oxide-mediated cross-talk of proline and heat shock proteins induce thermotolerance in

Vicia faba L. Environmental and Experimental Botany Available online 23 June 2018.

Agrisera

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

<u>Balfagón</u> et al. (2018). Involvement of ascorbate peroxidase and heat shock proteins on citrus tolerance to combined conditions of drought and high temperatures. Plant Physiol Biochem. 2018

<u>Pantelić</u> et al. (2018). Effects of high temperature on in vitro tuberization and accumulation of stress-responsive proteins in potato. Hortic. Environ. Biotechnol. (2018) 59: 315.

<u>Zhu</u> et al. (2018). Cloning and expression of a new cytoplasmic small heat shock protein gene from Pinellia ternata. Acta Physiologiae Plantarum March 2018, 40:44.

<u>Murano</u> et al. (2017). A purine-type heat shock protein 90 inhibitor promotes the heat shock response in Arabidopsis. Plant Biotechnology Reports April 2017, Volume 11, Issue 2, pp 107–113.

McLoughlin et al. (2016) Class I and II Small Heat Shock Proteins Together with HSP101 Protect Protein Translation Factors during Heat Stress. Plant Physiol. 2016 Oct;172(2):1221-1236.

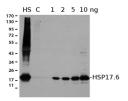
Shen et al. (2016). The Arabidopsis polyamine transporter LHR1/PUT3 modulates heat responsive gene expression by enhancing mRNA stability. Plant J. 2016 Aug 19. doi: 10.1111/tpj.13310. [Epub ahead of print]

<u>Yamauchi</u> et al. (2015). Reactive short-chain leaf volatiles act as powerful inducers of abiotic stress-related gene expression.

<u>Pyatrikas</u> et al. (2014). Mitochondrial Retrograde Regulation of HSP101 Expression in Arabidopsis thaliana under Heat Stress and Amiodarone Action. Russian J. Plant Physiol. 61 (1):88-98. (Western blot, cell culture) <u>Florentin</u> et al. (2013). Stress induces plant somatic cells to acquire some features of stem cells accompanied by selective chromatin reorganization. Dev. Dyn. Oct; 242(10):1121-33.

For high resolution images, please visit the specific product page at www.agrisera.com

Application example



15 μg of total protein from (HS) heat shocked *Arabidopsis thaliana*, (C) *Arabidopsis thaliana* control plants, (1,2,5,10) 1,2,5,10 ng of recombinant puridfied HSP17.6 were separated on 15%SDS-PAGE and blotted 1h to nitrocellulose (Biorad). Blots were incubated in the primary antibody at a dilution of 1: 1000 for 1h at room temperature with agitation and secondary HRP-conjugated antibody (1: 10 000).