

Product no **AS08 287****HSP101 | ClpB heat shock protein, C-terminal****Product information**

<b>Immunogen</b>	Recombinant protein of <i>Arabidopsis thaliana</i> Hsp101/ClpB, C-terminal 145 amino acids UniProt: <a href="#">P42730</a> , TAIR: <a href="#">At1g74310</a>
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Purity</b>	Serum
<b>Format</b>	Lyophilized
<b>Quantity</b>	50 µl
<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 : 1000 (WB)
<b>Expected   apparent MW</b>	101 kDa
<b>Confirmed reactivity</b>	<i>Arabidopsis thaliana</i> , <i>Agave tequilana</i> , <i>Citrus sp.</i> , <i>Cucumis sativus</i> L. var Krak
<b>Predicted reactivity</b>	<i>Citrus sinensis</i> , <i>Glycine max</i> , <i>Nicotiana tabacum</i> , <i>Oryza sativa</i> , <i>Populus trichocarpa</i> , <i>Triticum aestivum</i> , <i>Vitis vinifera</i>
<b>Not reactive in</b>	No confirmed exceptions from predicted reactivity are currently known
<b>Additional information</b>	<p><b>When using this antibody on a new species</b> with this antibody perform a following experiment: prepare a leaf extract from a leaf without stress and one that has been heat stressed as follows: Take a whole leaf (in the case of plants with small leaves, like <i>Arabidopsis thaliana</i>), or part of a leaf and place on wet filter paper in a petri dish. Heat stress in the dark at 38°C/90 minutes to 2 hours and then allow to recover for 2 hours at room temperature in low light (leave it on the lab bench). You should be able to load 10 µg for western blotting and compare the non-heat stressed to the heat stressed sample.</p> <p>Use <i>Arabidopsis thaliana</i> leaf as a positive control. Following such treatment 1 µg of a total protein from <i>Arabidopsis thaliana</i> allows detection of HSP101.</p>
<b>Selected references</b>	<p><a href="#">Bychkov</a> et al. (2022) The role of PAP4/FSD3 and PAP9/FSD2 in heat stress responses of chloroplast genes. <i>Plant Sci.</i> 2022 Sep;322:111359. doi: 10.1016/j.plantsci.2022.111359. Epub 2022 Jun 20. PMID: 35738478.</p> <p><a href="#">Balfagon</a> et al. (2018). Involvement of ascorbate peroxidase and heat shock proteins on citrus tolerance to combined conditions of drought and high temperatures. <i>Plant Physiol Biochem.</i> 2018 Jun;127:194-199. doi: 10.1016/j.plaphy.2018.03.029.</p> <p><a href="#">McLoughlin</a> et al. (2016) Class I and II Small Heat Shock Proteins Together with HSP101 Protect Protein Translation Factors during Heat Stress. <i>Plant Physiol.</i> 2016 Oct;172(2):1221-1236.</p> <p><a href="#">Janicka-Russak</a> et al. (2013). Modification of plasma membrane proton pumps in cucumber roots as an adaptation mechanism to salt stress. <i>J Plant Physiol.</i> March 14.</p> <p><a href="#">Janicka-Russak</a> et al. (2012). Different effect of cadmium and copper on H<sup>+</sup>-ATPase activity in plasma membrane vesicles from <i>Cucumis sativus</i> roots. <i>J. Exp. Botany</i>, March 2012, ahead of print.</p>