

product **AS05 083**

HSP70/HSC70 | Heat shock protein 70/Heat shock cognate protein 70

product information

background	Heat shock protein 70 (HSP70) is the major stress-inducible protein in vertebrates and is highly conserved throughout evolution. It plays a role as a molecular chaperone and is important for allowing cells to cope with acute stress or insult, especially those affecting the protein machinery. Heat shock cognate protein 70 (HSC70) is a highly conserved protein and a member of the family of molecular chaperones.
immunogen	<u>KLH</u> -conjugated synthetic peptide conserved across all known sequences of HSP70 and HSC70 proteins
antibody format	rabbit; polyclonal; serum; lyophilized
quantity	100 µl - for reconstitution add 100 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)
additional information	for detection of plant and algal cytoplasmic hsp70 we recommend the following product: AS08 371

application information

recommended dilution	1: 1000 with standard ECL (WB), 1: 10 000 with ECL Advance (GE Healthcare)
expected apparent MW	70 kDa
confirmed reactivity	fish, human, rat
predicted reactivity	vertebrates including bovine, hen, mouse; insects including <i>Drosophila melanogaster</i>
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	this antibody is not suitable for work with samples from higher plants
selected references	to be added when available

application example

100 ng of rat hsp70 (1) and human hsp70 (2) were separated on 4-12% NuPage (Invitrogen) LDS-PAGE and blotted 1h to 4-12% NuPage (Invitrogen) LDS-PAGE and blotted 1h to **PVDF**. Blots were blocked immediately following transfer in 2% ECL Advance blocking reagent (GE Healthcare) in 20 mM Tris, 137 mM sodium chloride pH 7.6 with 0.1% (v/v) Tween-20 (TBS-T) for 1h at room temperature with agitation. Blots were incubated in the **primary antibody** at a dilution of **1: 10 000** for 1h at room temperature with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in TBS-T at room temperature with agitation. Blots were incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Abcam) diluted to 1:50 000 in 2% ECL Advance blocking solution for 1h at room temperature with agitation. The blots were washed as above and developed for 5 min with ECL Advance detection reagent according the manufacturers instructions. Images of the blots were obtained using a CCD imager (FluorSMax, Bio-Rad) and Quantity One software (Bio-Rad).

