

product **AS09 592**
HSP70/HSC70 | heat shock protein 70

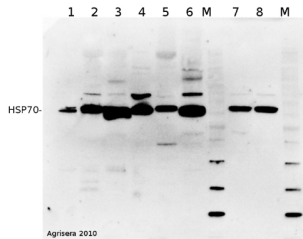
product information

background	Heat-shock protein 70 (Hsp70) is the major stress-inducible protein in vertebrates and highly conserved throughout evolution. It plays a role as a molecular chaperone and is important for allowing cells to cope with acute stressor insult, especially those affecting the protein machinery. A killifish is a large family of various oviparous (egg-laying) cyprinodontiform fish including 1270 different species.
immunogen	<u>KLH</u> -conjugated C-terminal synthetic peptide conserved in hsc/hsp70 sequences from a wide range of animal species
antibody format	rabbit polyclonal serum, lyophilized
quantity	200 µl, for reconstitution add 200 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	Chosen peptide sequence is also conserved in several fish species including: <u>DQ202278.1</u> HSC70 <i>Fundulus</i> , <u>DQ202279.1</u> HSP70-1 <i>Fundulus</i> , <u>DQ202280.1</u> HSP70-2 <i>Fundulus</i> , <u>BT059361.1</u> HSC70 <i>Salmo salar</i> (atlantic salmon), <u>AB092839.2</u> HSP70 <i>Carassius auratus</i> (goldfish), <u>BC056709.1</u> HSP70 <i>Danio rerio</i> (zebrafish) and other animal HSP70 proteins

application information

recommended dilution	1:10 000 with ECL Advance (WB)
expected apparent MW	70 kDa
confirmed reactivity	salmon (<i>Salmo salar</i>), rainbow trout (<i>Oncorhynchus mykiss</i>), cow, chicken, pig, rat, seal, mummichog
predicted reactivity	atlantic salmon (<i>Salmo salar</i>), brook trout (<i>Salvelinus fontinalis</i>)
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	not available at the moment
selected references	Chandra et al. (2012). Sustained high temperature increases the vitellogenin response to 17 alpha-ethynylestradiol in mummichog (<i>Fundulus heteroclitus</i>). Aquatic toxicology.

application example



5 µg of total protein from **(1)** cow muscle, **(2)** chicken muscle, **(3)** pig muscle, **(4)** rat liver, **(5)** salmon muscle, **(6)** seal muscle, **(7)** mummichog heat shock control, **(8)** mummichog heat shock post-24 hours, extracted with Protein Extraction Buffer, PEB (AS08 300), were separated on 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 (Agrisera anti-rabbit IgG horse radish peroxidase conjugated, AS09 602) 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 to the manufacturers instructions. Images of the blots were obtained using a CCD imager (FluorSMax, Bio-Rad) and Quantity One software (Bio-Rad). Exposure time was 30 seconds.