

# Product Datasheet

## HSP70/HSPA1A Antibody (5A5) - BSA Free NBP1-21690

Unit Size: 0.1 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NBP1-21690**

HSP70/HSPA1A Antibody (5A5) - BSA Free

<b>Product Information</b>	
<b>Unit Size</b>	0.1 mg
<b>Concentration</b>	1 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	5A5
<b>Preservative</b>	0.09% Sodium Azide
<b>Isotype</b>	IgG1
<b>Purity</b>	Protein G purified
<b>Buffer</b>	PBS (pH 7.2), 50% Glycerol
<b>Product Description</b>	
<b>Host</b>	Mouse
<b>Gene ID</b>	3303
<b>Gene Symbol</b>	HSPA1A
<b>Species</b>	Human, Mouse, Rat, Amphibian, Chicken, Drosophila, Fish, Yeast
<b>Specificity/Sensitivity</b>	Detects approx 70kDa. May detect HSP70, HSC70, Grp78 and HSP72.
<b>Immunogen</b>	Human recombinant HSP70 overexpressed in E.coli
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, Microarray
<b>Recommended Dilutions</b>	Western Blot 1:1000, Flow Cytometry, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1:500, Immunoprecipitation 1ug, Immunohistochemistry-Paraffin 1:10-1:500, Microarray
<b>Application Notes</b>	1 ug/ml of HSP70 Antibody was sufficient for detection of HSP70 in 20 ug of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary Antibody. Use in Flow reported in scientific literature (PMID:33513976)

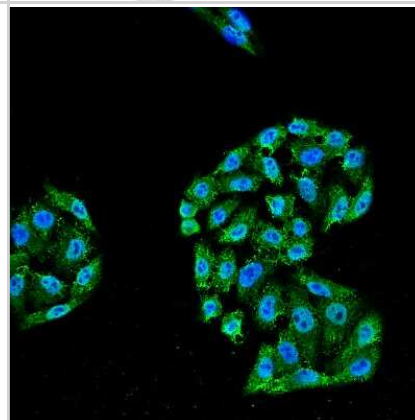


## Images

Western Blot: HSP70/HSPA1A Antibody (5A5) [NBP1-21690] - analysis of Rat skeletal muscle tissue lysate showing detection of Hsp70 protein using Mouse Anti-Hsp70 Monoclonal Antibody, Clone 5A5 . Load: 15 ug protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Hsp70 Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

201.5→  
156→  
106→  
79.68→  
48.33→  
37.81→  
23.27→  
18.19→  
14.17→

Immunocytochemistry/Immunofluorescence: HSP70/HSPA1A Antibody (5A5) [NBP1-21690] - Tissue: Cervical Cancer cell line (HeLa). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-HSP70 Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: DAPI (blue) nuclear stain at 1:5000 for 5 min RT. Localization: Nucleus, Cytoplasm. Magnification: 40X.



## Publications

Lucas TA, Johns G, Jiang W, Yang L. A population model of chaparral vegetation response to frequent wildfires. *Bulletin of mathematical biology* 2014-08-13 [PMID: 24091781]

Ferguson Bennit HR, Gonda A, Kabagwira J, et al. Natural Killer Cell Phenotype and Functionality Affected by Exposure to Extracellular Survivin and Lymphoma-Derived Exosomes *International journal of molecular sciences* 2021-01-27 [PMID: 33513976] (FLOW, Human)

Balashova N, Chang FJ, Lamothe M, Sun Q, Beuve A. Characterization of a novel type of endogenous activator of soluble guanylyl cyclase. *J Biol Chem* 280:2186-96. 2005-01-01 [PMID: 15509556] (IP)

Fink AL. Chaperone-mediated protein folding. *Physiol. Rev.* 79: 425-449. 1999-01-01 [PMID: 10221986]

Boorstein W R, Ziegelhoffer T, Craig E A. Molecular evolution of the HSP70 multigene family. *J. Mol. Evol.*38 (1): 1-17. 1993-01-01 [PMID: 8151709]

Rothman J. Polypeptide chain binding proteins: catalysts of protein folding and related processes in cells. *Cell* 59: 591-601. 1989-01-01 [PMID: 2573430]

DeLuca-Flaherty et al. Uncoating protein (hsc70) binds a conformationally labile domain of clathrin light chain LCa to stimulate ATP hydrolysis. *Cell* 62: 875-887. 1990-01-01 [PMID: 1975516]

Bork P, Sander C & Valencia A. An ATPase domain common to prokaryotic cell cycle proteins, sugar kinases, actin, and hsp70 heat shock proteins. *Proc. Natl Acad. Sci. USA* 89: 7290-7294. 1992-01-01 [PMID: 1323828]



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### **Products Related to NBP1-21690**

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)
NBP1-77455PEP	HSP70/HSPA1A Antibody Blocking Peptide

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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