

# Product Datasheet

## HspA1B Antibody (3B7) - Azide and BSA Free H00003304-M02

Unit Size: 0.1 mg

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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**H00003304-M02**

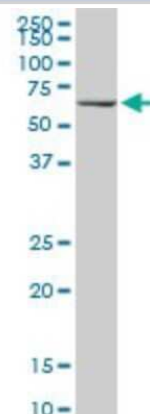
HspA1B Antibody (3B7) - Azide and BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	3B7
Preservative	No Preservative
Isotype	IgG2a Kappa
Purity	IgG purified
Buffer	In 1x PBS, pH 7.4
Product Description	
Description	Quality control test: Antibody Reactive Against Recombinant Protein.
Host	Mouse
Gene ID	3304
Gene Symbol	HSPA1B
Species	Human, Mouse, Rat, Porcine, Bovine
Reactivity Notes	Bovine reactivity reported in scientific literature (PMID: 26344128). Porcine reactivity reported in scientific literature (PMID: 24862986). Please note that this antibody is reactive to Mouse and derived from the same host, Mouse. Mouse-On-Mouse blocking reagent may be needed for IHC and ICC experiments to reduce high background signal. You can find these reagents under catalog numbers PK-2200-NB and MP-2400-NB. Please contact Technical Support if you have any questions.
Specificity/Sensitivity	HSPA1B (3B7)
Immunogen	HSPA1B (NP_005336, 531 a.a. ~ 611 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa. VQRERVSAKNALESYAFNMKSAVEDEGLKGKISEADKKKVLDKCQEVISWLDA NTLAEKDEFEHKRKELEQVCNPIISGLY
Notes	This product is produced by and distributed for Abnova, a company based in Taiwan.
Product Application Details	
Applications	Western Blot, Dot Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Proximity Ligation Assay
Recommended Dilutions	Western Blot 1:500, ELISA, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Paraffin, Proximity Ligation Assay, Dot Blot
Application Notes	Antibody reactivity against cell lysate and recombinant protein for WB. Use in Dot blot reported in scientific literature (PMID: 26344128).

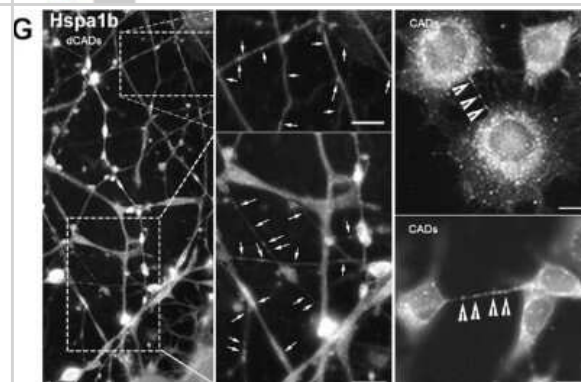


## Images

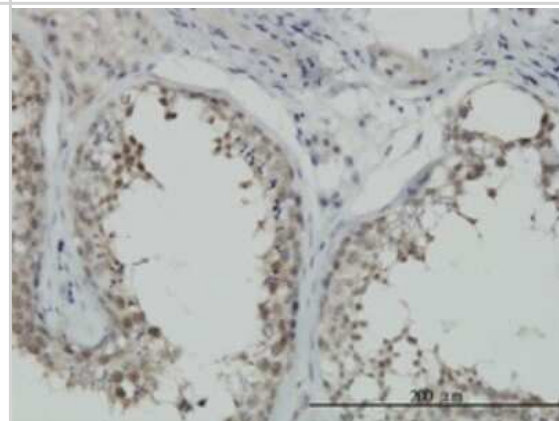
Western Blot: HspA1B Antibody (3B7) [H00003304-M02] - HSPA1B monoclonal antibody (M02), clone 3B7. Analysis of HSPA1B expression in NIH/3T3.



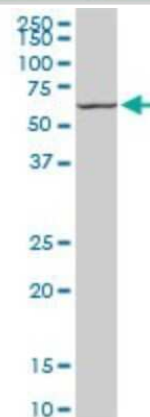
Immunocytochemistry/Immunofluorescence: HspA1B Antibody (3B7) [H00003304-M02] - Validation of the LCM/MS data from cellular protrusions using microscopy. Immunofluorescence (IF) of proteins identified by LCM/MS not expected to be within protrusions based on their known functions/localizations. HspA1B was observed in dCAD protrusions and TNTs. White arrows/arrowheads show punctates within dCAD/hCAD protrusions and GCs or within TNTs, respectively. Scale bars = 10  $\mu$ m. CAD = Cath.A differentiated neuronal cell line; dCAD = serum-starved differentiated CAD; TNT = Tunneling nanotube. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30866487/>) licensed under a CC-BY license.



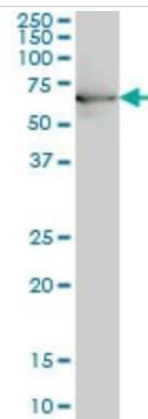
Immunohistochemistry-Paraffin: HspA1B Antibody (3B7) [H00003304-M02] - Analysis of monoclonal antibody to HSPA1B on formalin-fixed paraffin-embedded human testis. Antibody concentration 6  $\mu$ g/ml.



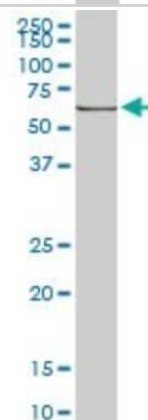
Western Blot: HspA1B Antibody (3B7) [H00003304-M02] - HSPA1B monoclonal antibody (M02), clone 3B7. Analysis of HSPA1B expression in PC-12.



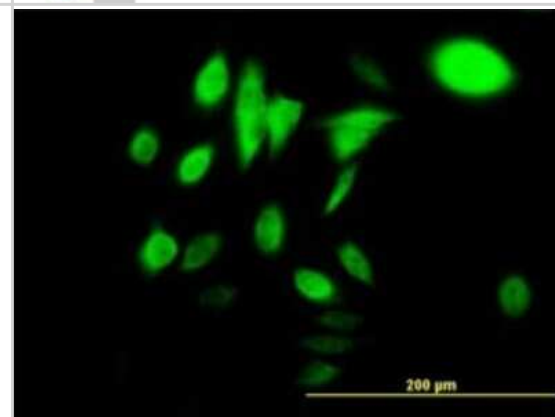
Western Blot: HspA1B Antibody (3B7) [H00003304-M02] - HSPA1B monoclonal antibody (M02), clone 3B7 Analysis of HSPA1B expression in IMR-32.



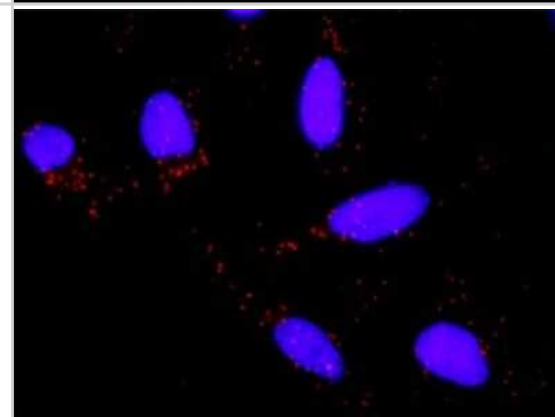
Western Blot: HspA1B Antibody (3B7) [H00003304-M02] - HSPA1B monoclonal antibody (M02), clone 3B7. Analysis of HSPA1B expression in Raw 264.7.



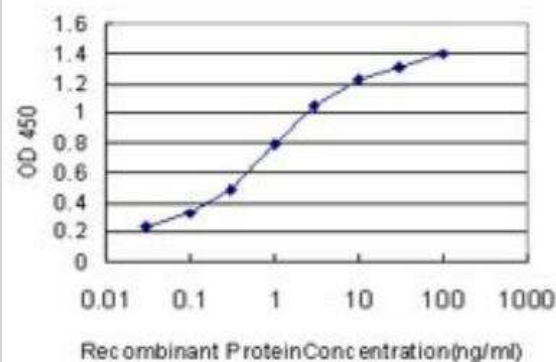
Immunocytochemistry/Immunofluorescence: HspA1B Antibody (3B7) [H00003304-M02] - Analysis of monoclonal antibody to HSPA1B on HeLa cell. Antibody concentration 10 ug/ml.



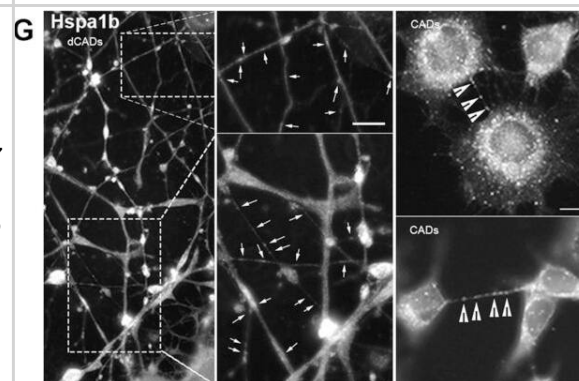
Proximity Ligation Assay: HspA1B Antibody (3B7) [H00003304-M02] - Analysis of protein-protein interactions between TP53 and HSPA1B. HeLa cells were stained with anti-TP53 rabbit purified polyclonal 1:1200 and anti-HSPA1B mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



ELISA: HspA1B Antibody (3B7) [H00003304-M02] - Detection limit for recombinant GST tagged HSPA1B is approximately 0.03ng/ml as a capture antibody.



Immunocytochemistry/ Immunofluorescence: HspA1B Antibody (3B7) [H00003304-M02] - Validation of the LCM/MS data from cellular protrusions using microscopy. Immunofluorescence (IF) of proteins identified by LCM/MS (A–D) “expected” or (E–H) “not expected” to be within protrusions based on their known functions/localizations. (A) Cd47 & (B) Anxa2 are found in both hCAD/dCAD protrusions. (C) Tenm2 is found within hCAD protrusions & (D) Cobl in GCs. Interestingly, (E) Grk5 was observed in hCAD protrusions; (F) Hist1h3b protein in hCAD protrusions & GCs (G) Hspa1b in dCAD protrusions & TNTs & (H) Arg1 in dCAD protrusions, GCs, & TNTs. White arrows/arrowheads show punctates within dCAD/hCAD protrusions & GCs or within TNTs, respectively. Scale bars = 10  $\mu$ m. IF of all 8 proteins corroborate the LCM/MS protein identification for each subtypes of protrusions. (I) 1198 unique proteins were identified by LCM/MS to be in protrusions & 169 were found to be exclusive to protrusions. 904 of the 1198 proteins found in protrusions & 87 out of 169 exclusive proteins had images in the HPA Subcell database. IF images for the proteins identified by LCM/MS in protrusions, present in the HPA Subcell database, were observed & catalogued as being observed or not in protrusions (Figure S2). On average 4.7% of proteins are found in protrusions in the HPA database, 13.6% are found in our LCM isolated protrusions & 23% were found in the “exclusive” LCM protrusions. The fold enrichment increases by 2.9% or 4.8% when we looked at proteins identified by LCM/MS in protrusions or exclusive to protrusions, respectively. Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/30866487>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Gousset K, Gordon A, Kumar Kannan S, Tovar J. A novel Microproteomic Approach Using Laser Capture Microdissection to Study Cellular Protrusions Int J Mol Sci 2019-03-07 [PMID: 30866487] (ICC/IF, Mouse)

Gagaoua M, Terlouw EMC, Picard B. et al. The study of protein biomarkers to understand the biochemical processes underlying beef color development in young bulls. Meat Sci 2017-07-18 [PMID: 28750331]

Guillemin N, Bonnet M, Jurie C et al. Functional analysis of beef tenderness. J Proteomics 2011-08-09 [PMID: 21855665]

Picard B, Gagaoua M, Micol D et al. Inverse relationships between biomarkers and beef tenderness according to contractile and metabolic properties of the muscle. J Agric Food Chem 2014-08-24 [PMID: 25175407]

Gagaoua M, Terlouw EMC, Boudjellal A, Picard B. Coherent correlation networks among protein biomarkers of beef tenderness: What they reveal. Journal of proteomics 2015-10-14 [PMID: 26344128] (WB, Cytometric Bead Assay Standard, Bovine)

Hossain MA, De Souza AI, Bagul A et al. HSP70, Peroxiredoxin-3 and -6 are upregulated during renal warm ischaemia in a donation after circulatory death model. J Proteomics. 2014-05-24 [PMID: 24862986] (WB, Porcine)



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### **Products Related to H00003304-M02**

HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96981-0.5mg	Mouse IgG2a Kappa Isotype Control (M2AK)
H00003304-Q01-10ug	Recombinant Human HspA1B GST (N-Term) Protein

### **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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