



# Heat Shock Protein & Chaperone

Recombinant Proteins & Antibodies



Global NK cell Leader

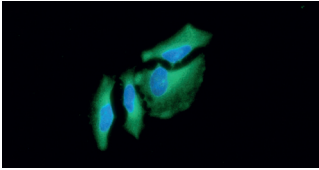
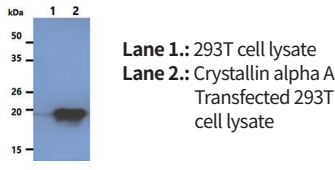
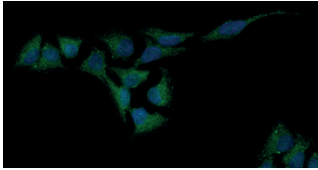

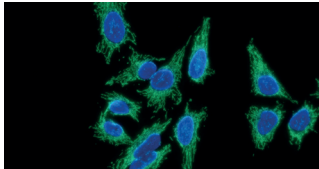
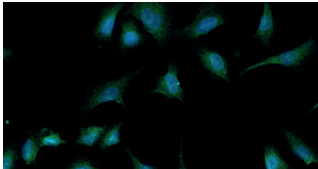
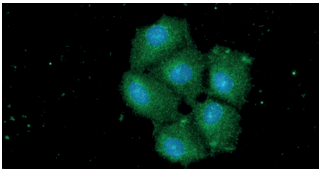
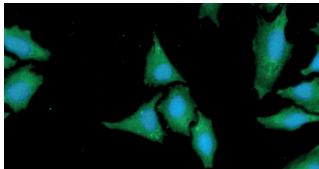
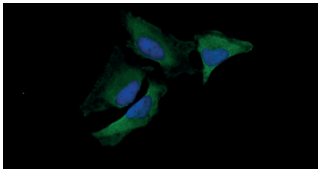
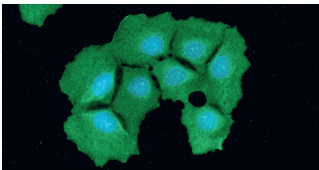
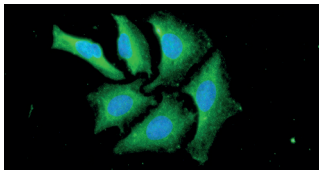
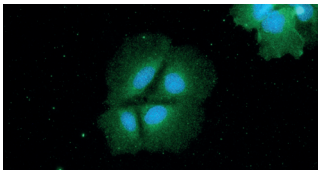
# Heat Shock Protein

**Heat shock proteins (HSPs)** have been studied for their role in protecting cells from high temperature and stress conditions. HSPs have been classified into six major families based on their molecular masses such as HSPH (HSP110), HSPC (HSP90), HSPA (HSP70), DNAJ (HSP40), HSPB (small HSPs), and the chaperonin families HSPD/E (HSP60/HSP10) and CCT (TRiC). The inducible HSP expression is regulated by the heat-shock transcription factors. HSPs have been involved in different functions including chaperone activity, protein folding, apoptosis, autophagy, and immunity. Also, HSP families stimulate innate immunity through Toll-like receptors and scavenger receptors. HSP-mediated phagocytosis enhances the presentation of internalized antigens via the endocytic pathway in adaptive immune system.

## Related Monoclonal Antibodies

Product name	Clone No.	Applications	Isotype	Host	Cat No.
HSP27	2A5	ELISA, WB, FACS, ICC/IF, IHC	IgG <sub>1</sub> , k	M	AHS0702
<b>BEST</b> Alpha A Crystallin/CRYAA	c9F2	ELISA, WB, FACS	IgG <sub>1</sub> , k	M	ACA0401
	c9F2 (TCS)	ELISA, WB	IgG <sub>1</sub> , k	M	ATGA0550
<b>BEST</b> Alpha B Crystallin/CRYAB	2E8	ELISA, WB, ICC/IF	IgG <sub>2b</sub> , k	M	ACB0617
HO-1/HMOX1/HSP32	AT1D6	ELISA, WB, FACS, ICC/IF	IgG <sub>2a</sub> , k	M	ATGA0454
HSP40/DNAJB1	k1C7	ELISA, WB	IgG <sub>2a</sub> , k	M	AHS0716
<b>BEST</b> HSP60	2E9	ELISA, WB, ICC/IF, IHC	IgG <sub>1</sub> , k	M	AHS0815
TBCA	AT1A5	ELISA, WB, FACS, ICC/IF	IgG <sub>2b</sub> , k	M	ATGA0155
<b>BEST</b> HSP70	4E7	ELISA, WB, ICC/IF, IHC	IgG <sub>1</sub> , k	M	AHS0703
<b>BEST</b> GRP78/HSPA5	AT3D2	ELISA, WB, ICC/IF	IgG <sub>1</sub> , k	M	ATGA0320
	AT3D2 (TCS)	ELISA, WB, ICC/IF	IgG <sub>1</sub> , k	M	ATGA0564
HSPA13	AT2F6	ELISA, WB, ICC/IF	IgG <sub>1</sub> , k	M	ATGA0477
SGTA	AT19E8	ELISA, WB, ICC/IF	IgG <sub>1</sub> , k	M	ATGA0408
ST13	AT5C6	ELISA, WB, FACS, ICC/IF	IgG <sub>2a</sub> , k	M	ATGA0309
BAG2	AT29E9	ELISA, WB, ICC/IF	IgG <sub>2a</sub> , k	M	ATGA0438
<b>BEST</b> HSP90 alpha	4F10	ELISA, WB, FACS, ICC/IF, IHC	IgG <sub>2b</sub> , k	M	AHS0704
<b>BEST</b> gp96/HSP90B1/TRA1	2H3	ELISA, WB, FACS, ICC/IF	IgG <sub>2a</sub> , k	M	ATA0623
	AT94B9	ELISA, WB, FACS, ICC/IF	IgG <sub>2b</sub> , k	M	ATGA0348
AHA1	AT3E9	ELISA, WB, ICC/IF	IgG <sub>2b</sub> , k	M	ATGA0388
CDC37	AT3G7	ELISA, WB, ICC/IF	IgG <sub>1</sub> , k	M	ATGA0428
<b>BEST</b> HSPH1	J1G12	ELISA, WB, FACS, ICC/IF	IgG <sub>2b</sub> , k	M	AHS0827
<b>BEST</b> Cyclophilin B	k2E2	ELISA, WB, FACS, ICC/IF	IgG <sub>1</sub> , k	M	ACB0825
	k2E2 (TCS)	ELISA, WB, ICC/IF	IgG <sub>1</sub> , k	M	ATGA0545
Cyclophilin C	AT3C6	ELISA, WB, FACS, ICC/IF	IgG <sub>2b</sub> , k	M	ATGA0218
Cyclophilin D	AT1B8	ELISA, WB, ICC/IF	IgG <sub>2b</sub> , k	M	ATGA0473
Cyclophilin E	AT17E8	ELISA, WB	IgG <sub>1</sub> , k	M	ATGA0465
Cyclophilin F	AT1F5	ELISA, WB, ICC/IF, IHC	IgG <sub>2b</sub> , k	M	ATGA0139
ERp57/PDIA3	AT9E9	ELISA, WB, ICC/IF	IgG <sub>2a</sub> , k	M	ATGA0410
<b>BEST</b> FKBP52 /FKBP4	AT4D3	ELISA, WB, FACS, ICC/IF, IHC	IgG <sub>2b</sub> , k	M	ATGA0142
FKBP6	AT9B7	ELISA, WB	IgG <sub>1</sub> , k	M	ATGA0275
FKBP14	AT18E2	ELISA, WB, ICC/IF	IgG <sub>1</sub> , k	M	ATGA0436

H : Human M : Mouse TCS : Tissue Cell Supernatant

<b>HSP27 antibody (2A5)</b> (Cat No. ASH0702)	<b>Alpha A Crystallin/CRYAA antibody (c9F2)</b> (Cat No. ACA0401)	<b>Alpha B Crystallin/CRYAB antibody (2E8)</b> (Cat No. ACB0617)
	 <p>Lane 1.: 293T cell lysate Lane 2.: Crystallin alpha A Transfected 293T cell lysate</p>	
<p><b>ICC/IF analysis</b> ICC/IF analysis of HSP27 in HeLa cells. The cell was stained with AHS0702 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>	<p><b>WB analysis</b> The cell lysates (5ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with ACA0401 (1:3,000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.</p>	<p><b>ICC/IF analysis</b> ICC/IF analysis of Crystallin alpha B in HeLa cells. The cell was stained with ACB0617 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>
<b>HSP40/DNAJB1 antibody (k1C7)</b> (Cat No. AHS0716)	<b>HSP60 antibody (2E9)</b> (Cat No. AHS0815)	<b>HSP70 antibody (4E7)</b> (Cat No. AHS0703)
 <p>Lane 1.: 293T cell lysate Lane 2.: HSP40 Transfected 293T cell lysate</p>		
<p><b>WB analysis</b> The Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with AHS0716 (1:1,000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.</p>	<p><b>ICC/IF analysis</b> ICC/IF analysis of HSP60 in HeLa cells. The cell was stained with AHS0815 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>	<p><b>ICC/IF analysis</b> ICC/IF analysis of HSP70 in A549 cells line. The cell was stained with AHS0703 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>
<b>HSPA13 antibody (AT2F6)</b> (Cat No. ATGA0477)	<b>BAG2 antibody (AT29E9)</b> (Cat No. ATGA0438)	<b>HSP90 alpha antibody (4F10)</b> (Cat No. AHS0704)
		
<p><b>ICC/IF analysis</b> ICC/IF analysis of HSPA13 in Hep3B cells. The cell was stained with ATGA0477 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>	<p><b>ICC/IF analysis</b> ICC/IF analysis of BAG2 in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human BAG2 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).</p>	<p><b>ICC/IF analysis</b> ICC/IF analysis of HSP90 in HeLa cells. The cell was stained with AHS0704 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>
<b>HSPH1 antibody (J1G12)</b> (Cat No. AHS0827)	<b>Cyclophilin F antibody (AT1F5)</b> (Cat No. ATGA0139)	<b>Cyclophilin B antibody (k2E2)</b> (Cat No. ACB0825)
		
<p><b>ICC/IF analysis</b> ICC/IF analysis of HSP105 alpha in Hep3B cells. The cell was stained with AHS0827 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>	<p><b>ICC/IF analysis</b> ICC/IF analysis of PPIF in HeLa cells. The cell was stained with ATGA0139 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>	<p><b>ICC/IF analysis</b> ICC/IF analysis of Cyclophilin B in Hep3B cells. The cell was stained with ACB0825 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>

## References

Kon N, et al. A small-molecule DS44170716 inhibits Ca<sup>2+</sup>-induced mitochondrial permeability transition. *Sci Rep.* 2017 Jun 20;7(1):3864. [PMID: 28634393] **Cyclophilin F/PPIF antibody (AT1F5, Cat No. ATGA0139), IP; Human.**  
Kaiser F, et al. Association between circulating levels of heat-shock protein 27 and aggressive periodontitis. *Cell Stress Chaperones.* 2018 Sep;23(5):847-856. [PMID: 29766408] **HSP27 antibody (2A5, Cat No. AHS0702), ELISA; Human.**  
Fan Q, et al. Identification of proteins that interact with alpha A-crystallin using a human proteome microarray. *Mol Vis.* 2014 Jan 14;20:117-24. [PMID: 24453475] **Alpha A Crystallin/CRYAA antibody (c9F2, Cat No. ACA0401), WB; Human.**

Oh JY, et al. Identification of the HSPB4/TLR2/NF- $\kappa$ B axis in macrophage as a therapeutic target for sterile inflammation of the cornea. *EMBO Mol Med.* 2012 May;4(5):435-48. [PMID: 24453475] **Alpha A Crystallin/CRYAA antibody (c9F2, Cat No. ACA0401), WB and ELISA; Human.**  
Muinel-Romay L, et al. Identification of  $\alpha$ (1,6) fucosylated proteins differentially expressed in human colorectal cancer. *BMC Cancer.* 2011 Dec 7;11:508. [PMID: 22152070] **GP96/HSP90B1/TRA1 antibody (2H3, Cat No. ATA0623), WB; Human.**  
Zappasodi R, et al. Serological identification of HSP105 as a novel non-Hodgkin lymphoma therapeutic target. *Blood.* 2011 Oct 20;118(16):4421-30. [PMID: 21860023] **HSP105 alpha antibody (J1G12, Cat No. AHS0827), IP; Human.**

# Heat Shock Protein

## Related Recombinant Proteins

### • Small HSP Family (sHSP)

Product name	Species	Expression system	Cat No.
<b>BEST</b> HSP27/HSPB1	H	<i>E.coli</i>	ATGP0444
	H	<i>E.coli</i>	HSP0503
	M	<i>E.coli</i>	ATGP3866
<b>BEST</b> HSPB2	H	<i>E.coli</i>	ATGP1549
HSPB3	H	<i>E.coli</i>	ATGP1202
<b>BEST</b> Alpha A Crystallin/CRYAA	H	<i>E.coli</i>	CRA3001
Alpha B Crystallin/CRYAB	H	<i>E.coli</i>	CRA3002
	M	<i>E.coli</i>	CRB0801
HSP20/HSPB6	H	<i>E.coli</i>	ATGP3008
HSPB7	H	<i>E.coli</i>	ATGP0511
<b>BEST</b> HSPB8	H	<i>E.coli</i>	ATGP0493
HSPB9	H	<i>E.coli</i>	ATGP1492
HSPB11	H	<i>E.coli</i>	ATGP1061
HO-1/HMOX1/HSP32	H	<i>E.coli</i>	HMO0901
hchA	<i>E.coli</i>	<i>E.coli</i>	ATGP1023

### • HSP40/DNAJ Family

Product name	Species	Expression system	Cat No.
<b>BEST</b> DNAJA1	<i>E.coli</i>	<i>E.coli</i>	DNJ3001
HSP40/DNAJB1	H	<i>E.coli</i>	HSP0701
DNAJB2	H	<i>E.coli</i>	ATGP0788
DNAJB4	H	<i>E.coli</i>	ATGP1912
DNAJB6	H	<i>E.coli</i>	ATGP0859
DNAJB8	H	<i>E.coli</i>	ATGP1265
<b>BEST</b> DNAJB11	H	<i>E.coli</i>	ATGP0985
DNAJC12	H	<i>E.coli</i>	ATGP1636
DNAJC15	H	<i>E.coli</i>	ATGP2300
DNAJC19	H	<i>E.coli</i>	ATGP0911
HSCB/DNAJC20	H	<i>E.coli</i>	ATGP1604
DNAJC24	H	<i>E.coli</i>	ATGP2111
DNAJC27	H	<i>E.coli</i>	ATGP2751
<b>BEST</b> HSP47/Colligin	H	<i>E.coli</i>	HSP0904

### • HSP60/HSP10 Family

Product name	Species	Expression system	Cat No.
<b>BEST</b> HSP60	H	<i>E.coli</i>	HSP0802
	H	<i>E.coli</i>	ATGP2027
<b>BEST</b> GroEL	<i>E.coli</i>	<i>E.coli</i>	GRL3001
TCP1	H	<i>E.coli</i>	ATGP0768
<b>BEST</b> HSP10/EPF	H	<i>E.coli</i>	HSP0801
<b>BEST</b> GroES	<i>E.coli</i>	<i>E.coli</i>	GRS3002

### • HSP70 Family

Product name	Species	Expression system	Cat No.
<b>BEST</b> HSP70	H	<i>E.coli</i>	HSP0603
HSP70B	H	<i>E.coli</i>	ATGP0428
	H	<i>E.coli</i>	ATGP2212
	H	<i>E.coli</i>	BIP0901
	H	Baculovirus	ATGP0824
<b>BEST</b> GRP78/HSPA5	M	<i>E.coli</i>	ATGP3685
	H	<i>E.coli</i>	ATGP0415
<b>BEST</b> HSPA8/HSC71	H	<i>E.coli</i>	ATGP0415
<b>BEST</b> GRP75/HSPA9B	H	<i>E.coli</i>	HSP0901
HSPA13	H	<i>E.coli</i>	ATGP0971
	<i>E.coli</i>	<i>E.coli</i>	DNK3002
	<i>E.coli</i>	<i>E.coli</i>	DNK3001
	<i>E.coli</i>	<i>E.coli</i>	DNK2001
<b>BEST</b> Dnak	<i>E.coli</i>	<i>E.coli</i>	DNK2001
	<i>E.coli</i>	<i>E.coli</i>	DNK3003
	<i>E.coli</i>	<i>E.coli</i>	DNK3004
GrpE	<i>E.coli</i>	<i>E.coli</i>	GRP0701
HSPBP1	H	<i>E.coli</i>	ATGP0554
<b>BEST</b> CHIP/STUB1	H	<i>E.coli</i>	CHP0905
SGTA	H	<i>E.coli</i>	ATGP0533
Hip/ST13	H	<i>E.coli</i>	HIP0905
BAG1	H	<i>E.coli</i>	ATGP0508
BAG2	H	<i>E.coli</i>	ATGP0952
<b>BEST</b> BAG3	H	<i>E.coli</i>	ATGP0440
	H	<i>E.coli</i>	ATGP0426
<b>BEST</b> STI1	H	<i>E.coli</i>	ATGP3391
	M	<i>E.coli</i>	ATGP3526
SIL1	H	<i>E.coli</i>	ATGP1580

### • HSP90 family

Product name	Species	Expression system	Cat No.
<b>BEST</b> HSP90 alpha	H	<i>E.coli</i>	HSP0501
<b>BEST</b> gp96/HSP90B1	H	<i>E.coli</i>	ATGP0276
Activator of HSP90ATPase-1/AHA1	H	<i>E.coli</i>	AHA0701
CDC37	H	<i>E.coli</i>	CDC0901
p23/PTGES3	H	<i>E.coli</i>	ATGP0418
<b>BEST</b> STI1	H	<i>E.coli</i>	ATGP0426
	H	<i>E.coli</i>	ATGP3391
	M	<i>E.coli</i>	ATGP3526
<b>BEST</b> CHIP/STUB1	H	<i>E.coli</i>	CHP0905

### • HSP100 Family

Product name	Species	Expression system	Cat No.
HSP104	H	<i>E.coli</i>	HSP0502
<b>BEST</b> HSPH1	H	<i>E.coli</i>	HSP0803

H : Human M : Mouse



## Related Recombinant Proteins

### • Cyclophilins

	Product name	Species	Expression system	Cat No.
BEST	Cyclophilin A/PPIA	H	<i>E.coli</i>	CYP0702
		M	<i>E.coli</i>	ATGP2981
		<i>E.coli</i>	<i>E.coli</i>	ATGP2983
BEST	Cyclophilin B/PPIB	H	<i>E.coli</i>	CYP0701
		M	<i>E.coli</i>	ATGP3599
BEST	Cyclophilin-40/PPID	H	<i>E.coli</i>	CYP0801
		M	<i>E.coli</i>	ATGP3724
	Cyclophilin E/PPIE	H	<i>E.coli</i>	PPE0901
BEST	Cyclophilin D/Cyclophilin F/ PPIF	H	<i>E.coli</i>	PPF0901
		R	<i>E.coli</i>	ATGP3129
		R	<i>E.coli</i>	ATGP3496
	Cyclophilin G/PPIG	H	<i>E.coli</i>	ATGP0431
	Cyclophilin H/PPIH	H	<i>E.coli</i>	PPH0901
	PPIL1/Cyclophilin-like 1	H	<i>E.coli</i>	PPL0901
	PPIL2	H	<i>E.coli</i>	ATGP0498
	PPIL3	H	<i>E.coli</i>	ATGP1230
	PPIL4	H	<i>E.coli</i>	ATGP0791

### • FK506 binding protein (FKBP) Family

	Product name	Species	Expression system	Cat No.
BEST	FKBP52/FKBP4	H	<i>E.coli</i>	ATGP0303
BEST	FKBP1a /FKBP12	H	<i>E.coli</i>	ATGP0290
		M	<i>E.coli</i>	ATGP3084
BEST	FKBP12.6	H	<i>E.coli</i>	ATGP1266
	FKBP6	H	<i>E.coli</i>	ATGP0560
BEST	FKBP13	H	<i>E.coli</i>	ATGP0506
BEST	FKBP14	H	<i>E.coli</i>	ATGP0604
	FKBP25	H	<i>E.coli</i>	ATGP0494
	FKBPL	H	<i>E.coli</i>	ATGP0623
	SlyD	<i>E.coli</i>	<i>E.coli</i>	SLD0801

### References

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 Reinehr S, et al. HSP27 immunization reinforces All amacrine cell and synapse damage induced by S100 in an autoimmune glaucoma model. *Cell Tissue Res*. 2018 Feb;371(2):237-249. [PMID: 29064077] **Recombinant HSP27 protein (Cat No. HSP0503); Human.**  
 Grotteguet P, et al. Destructive Effect of Intravitreal Heat Shock Protein 27 Application on Retinal Ganglion Cells and Neurofilament. *Int J Mol Sci*. 2020 Jan 15;21(2):549. [PMID: 31952234] **Recombinant HSP27 protein (Cat No. HSP0503); Human.**  
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 Vilasi S, et al. Human HSP60 with its mitochondrial import signal occurs in solution as heptamers and tetradecamers remarkably stable over a wide range of concentrations. *PLoS One*. 2014 May 15;9(5):e97657. [PMID: 24830947] **Recombinant HSP60 protein (Cat No. ATGP2027); Human.**  
 Marino C, et al. HSP60 Protects against Amyloid  $\beta$  Oligomer Synaptic Toxicity via Modification of Toxic Oligomer Conformation. *ACS Chem Neurosci*. 2019 Jun 19;10(6):2858-2867. [PMID: 31091411] **Recombinant HSP60 protein (Cat No. ATGP2027); Human.**  
 Vilasi S, et al. Inhibition of A $\beta$  1-42 Fibrillation by Chaperonins: Human HSP60 Is a Stronger Inhibitor than Its Bacterial Homologue GroEL. *ACS Chem Neurosci*. 2019 Aug 21;10(8):3565-3574. [PMID: 31298838] **Recombinant HSP60 protein (Cat No. ATGP2027); Human.**

### • Protein Disulfide Isomerase (PDI) Family

	Product name	Species	Expression system	Cat No.
	P4HB	H	<i>E.coli</i>	ATGP3136
		H	<i>E.coli</i>	ATGP0670
		M	Baculovirus	ATGP3297
BEST	ERp57/PDIA3	H	<i>E.coli</i>	ATGP3137
		H	<i>E.coli</i>	ATGP0462
		M	<i>E.coli</i>	ATGP3620
	PDIA4	H	<i>E.coli</i>	ATGP3138
		H	<i>E.coli</i>	ATGP0686
BEST	PDIA6	H	<i>E.coli</i>	ATGP3139
		H	<i>E.coli</i>	ATGP0773
	ERp27	H	<i>E.coli</i>	ATGP0829
	ERp44	H	<i>E.coli</i>	ATGP0678
	TXNDC12	H	<i>E.coli</i>	ATGP1591
BEST	AG-2/AGR2	H	<i>E.coli</i>	AGR0706
		M	<i>E.coli</i>	ATGP3525
	AG-3	H	<i>E.coli</i>	ATGP1096

### • Heat Shock Factors

	Product name	Species	Expression system	Cat No.
BEST	HSF1	H	<i>E.coli</i>	HSF0801
	HSFY1	H	<i>E.coli</i>	ATGP2475(D)
	HSBP1	H	<i>E.coli</i>	HSB3001
	HSF2BP	H	<i>E.coli</i>	ATGP2784
	HSPBAP1	H	<i>E.coli</i>	ATGP1051

H : Human M : Mouse R : Rat D : Denatured form

**Custom Service** - Competitive price/High quality/Easy to communicate!

  
DNA Cloning  
Service

  
Protein Expression  
& Purification Service

  
Custom Monoclonal  
Antibodies Service

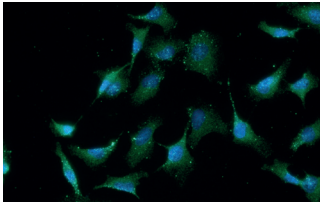
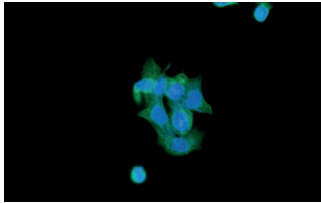
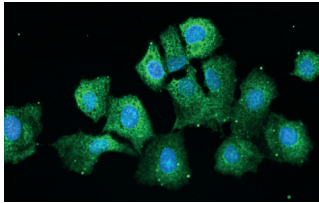
Kaiser F, et al. Monocyte cytokine synthesis in response to extracellular cell stress proteins suggests these proteins exhibit network behaviour. *Cell Stress Chaperones*. 2014 Jan;19(1):135-44. [PMID: 23775284] **Recombinant HSP10 (Cat No. HSP0801), HSP27 (Cat No. HSP0503), HSP60 (Cat No. HSP0802) and HSP70 proteins (Cat No. HSP0603); Human.**  
 Kim YH, et al. Secretory autophagy machinery and vesicular trafficking are involved in HMGB1 secretion. *Autophagy*. 2020 Oct 5;1-18. [PMID: 33017561] **Recombinant HSP90 alpha protein (Cat No. HSP0501); Human.**  
 Yoshiike Y, et al. Amyloid Oligomer Conformation in a Group of Natively Folded Proteins. *PLoS One*. 2008 Sep 18;3(9):e3235. [PMID: 18800165] **Recombinant HSP104 protein (Cat No. HSP0502); Human.**  
 Kim K, et al. Recombinant human Cyclophilin A stimulates hair follicle cells via Wnt/ $\beta$ -catenin signaling pathway. *Biotechnol Lett*. 2019 Dec;41(12):1451-1458. [PMID: 31655924] **Recombinant Cyclophilin A/PPIA protein (Cat No. CYP0702); Human.**  
 Tsuda T, et al. Rho-associated protein kinase and cyclophilin A are involved in inorganic phosphate-induced calcification signaling in vascular smooth muscle cells. *J Pharmacol Sci*. 2020 Mar;142(3):109-115. [PMID: 31882204] **Recombinant Cyclophilin A/PPIA protein (Cat No. CYP0702); Human.**  
 Kon N, et al. A small-molecule DS44170716 inhibits Ca<sup>2+</sup>-induced mitochondrial permeability transition. *Sci Rep*. 2017 Jun 20;7(1):3864. [PMID: 28634393] **Recombinant Cyclophilin D/ Cyclophilin F/PPIF protein (Cat No. PPF0901); Human.**

# Chaperone

**Chaperones** are present when the macromolecules perform their normal biological functions and have correctly completed the processes of folding and/or assembly. The chaperones are concerned primarily with protein folding. The first protein to be called a chaperone assists the assembly of nucleosomes from folded histones and DNA and such assembly chaperones, especially in the nucleus, are concerned with the assembly of folded subunits into oligomeric structures.

## Related Monoclonal Antibodies

Product name	Clone No.	Applications	Isotype	Host	Cat No.
TBCA	AT1A5	ELISA, WB, FACS, ICC/IF	IgG <sub>2b, k</sub>	M	ATGA0155
TBCB	AT1F6	ELISA, WB, FACS, ICC/IF	IgG <sub>2b, k</sub>	M	ATGA0302
TBCEL	AT1B10	ELISA, WB, FACS, ICC/IF	IgG <sub>2b, k</sub>	M	ATGA0351
AHA1	AT3E9	ELISA, WB, ICC/IF	IgG <sub>2b, k</sub>	M	ATGA0388
CDC37	AT3G7	ELISA, WB, ICC/IF	IgG <sub>1, k</sub>	M	ATGA0428

TBCA antibody (AT1A5) (Cat No. ATGA0155)	TBCEL antibody (AT1B10) (Cat No. ATGA0351)	AHA1 antibody (AT3E9) (Cat No. ATGA0388)
		
<p><b>ICC/IF analysis</b> ICC/IF analysis of TBCA in A549 cells. The cell was stained with ATGA0155 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>	<p><b>ICC/IF analysis</b> ICC/IF analysis of TBCEL in PC3 cells. The cell was stained with ATGA0351 (1:100). The secondary antibody (Green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (Blue).</p>	<p><b>ICC/IF analysis</b> ICC/IF analysis of AHA1 in Hep3B cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human AHA1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).</p>

## Related Recombinant Proteins

Product name	Species	Expression system	Cat No.	Product name	Species	Expression system	Cat No.
hchA	<i>E.coli</i>	<i>E.coli</i>	ATGP1023	TBCA	H	<i>E.coli</i>	ATGP0333
<b>BEST</b> Dnak	<i>E.coli</i>	<i>E.coli</i>	DNK3002	TBCB	H	<i>E.coli</i>	ATGP1581
	<i>E.coli</i>	<i>E.coli</i>	DNK3001	TBCC	H	<i>E.coli</i>	ATGP1673
	<i>E.coli</i>	<i>E.coli</i>	DNK2001	TBCEL	H	<i>E.coli</i>	ATGP1937
	<i>E.coli</i>	<i>E.coli</i>	DNK3003	PSMG2	H	<i>E.coli</i>	ATGP1211
	<i>E.coli</i>	<i>E.coli</i>	DNK3004	PSMG3	H	<i>E.coli</i>	ATGP0736
CDC37	H	<i>E.coli</i>	CDC0901	PSMG4	H	<i>E.coli</i>	ATGP1307
Activator of HSP90ATPase-1/AHA1	H	<i>E.coli</i>	AHA0701	MESDC2	H	<i>E.coli</i>	ATGP0933
p23/PTGES3	H	<i>E.coli</i>	ATGP0418		M	<i>E.coli</i>	ATGP3257
<b>BEST</b> STI1	H	<i>E.coli</i>	ATGP0426	fimC	<i>E.coli</i>	<i>E.coli</i>	ATGP0931
	H	<i>E.coli</i>	ATGP3391	HSCB	H	<i>E.coli</i>	ATGP1604
	M	<i>E.coli</i>	ATGP3526	<b>BEST</b> CCS	H	<i>E.coli</i>	ATGP0715
<b>BEST</b> BAG1	H	<i>E.coli</i>	ATGP0508	<b>BEST</b> SurA	<i>E.coli</i>	<i>E.coli</i>	ATGP0664
BAG2	H	<i>E.coli</i>	ATGP0952	<b>BEST</b> Skp	<i>E.coli</i>	<i>E.coli</i>	ATGP0589
<b>BEST</b> BAG3	H	<i>E.coli</i>	ATGP0440	SecB	<i>E.coli</i>	<i>E.coli</i>	ATGP0318
HSPBP1	H	<i>E.coli</i>	ATGP0554	ASF1A	H	<i>E.coli</i>	ATGP0296

H : Human M : Mouse