

# HSP/Chaperone Antibody Kit

## K2007



Contains Product	Specification	Applications	Species reactivity	MW(kDa)
HSPA14[ET1612-93]	20µl	WB,IF-Cell,IF-Tissue,IHC-P,IP	H,M,R	55 kDa
Hsp70[ET1601-11]	20µl	WB,IF-Cell,IF-Tissue,IHC-P,FC	H,M,R	70 kDa
GRP78[ER1706-50]	20µl	WB,IF-Cell,IHC-P,FC	H,M,R	72 kDa
HSP40[EM2001-05]	20µl	WB	H,M,R	38 kDa
Hsp90 beta[ET1605-56]	20µl	WB,IF-Cell,IF-Tissue,IHC-P,IP,FC	H,M,R	83 kDa
Hsp90 alpha[ET1605-57]	20µl	WB,IF-Cell,IF-Tissue,IHC-P	H,M,Mk	85 kDa
Calnexin[ET7111-36]	20µl	WB,IHC-P,FC	H,M,R	70 kDa
P4HB[ET7110-92]	20µl	WB,IF-Cell,IHC-P,FC	H,M,R	57 kDa
HRP-Alpaca anti-Rabbit IgG FC, Recombinant VHH[HA1031]	100µl	IP,ELISA,IHC-P,WB	Rab	
HRP-Goat anti-Mouse IgG[HA1006]	100µl	WB,ELISA,IHC-P	M	

**Description:** The HSP/Chaperone Sampler Kit provides an economical means to investigate protein folding within the cell. The kit contains enough primary and secondary antibodies to perform two Western blot experiments with each antibody.

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Background** HSP70 and HSP90 are molecular chaperones expressed constitutively under normal conditions to maintain protein homeostasis and are induced upon environmental stress. HSP70 and HSP90 interact with unfolded proteins to prevent irreversible aggregation and catalyze the refolding of their substrates in an ATP-dependent manner.

HSP40 family proteins bind unfolded proteins and prevent their aggregation, and deliver unfolded proteins to HSP70. HSP60 has primarily been known as a mitochondrial protein that is important for folding key proteins after import into the mitochondria. Calnexin is a calcium-binding protein embedded in the ER membrane that retains newly synthesized glycoproteins inside the ER to ensure proper folding and quality control. Heat shock gene transcription is regulated by a family of heat shock factors (HSFs), transcriptional activators that bind to heat shock response elements (HSEs) located upstream of all heat shock genes. During attenuation from the heat shock response, HSF1 is repressed by direct binding of HSP70, HSP40/Hdj-1 and HSF binding protein 1 (HSBP1).

**Database links:** UniProt ID: Q0VDF9 , Q99M31 , Q6AYB4 , P17879 , Q61696 , P0DMV9 , P0DMV8 , Q07439 , P11021 , P20029 , P06761 , P25685 , P08238 , P11499 , P34058 , P07900 , P07901 , P82995 , O14967 , P52194 , P07237 , P09103 , P04785

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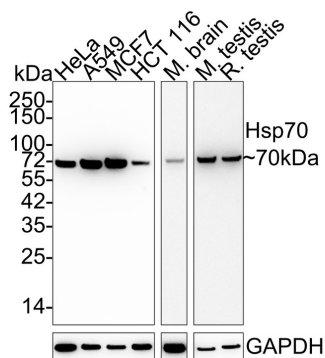
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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation



**Fig1:** Western blot analysis of Hsp70 on different lysates with Rabbit anti-Hsp70 antibody (ET1601-11) at 1/2,000 dilution.

Lane 1: HeLa cell lysate

Lane 2: A549 cell lysate

Lane 3: MCF7 cell lysate

Lane 4: HCT 116 cell lysate

Lane 5: Mouse brain tissue lysate

Lane 6: Mouse testis tissue lysate

Lane 7: Rat testis tissue lysate

Lysates/proteins at 15  $\mu$ g/Lane.

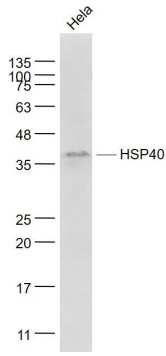
Predicted band size: 70 kDa

Observed band size: 70 kDa

Exposure time: Lane 1-4: 43 seconds; Lane 5-7: 2 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1601-11) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:50,000 dilution was used for 1 hour at room temperature.

**Fig2: Sample:**

Hela(Human) Cell Lysate at 30 ug

Primary: Anti- HSP40 (EM2001-05) at 1/1000 dilution

Secondary: Goat Anti-Mouse IgG at 1/20000 dilution

Predicted band size: 38 kD

Observed band size: 38 kD

**Note:** All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

**Background References**

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