

Rabbit Anti-HSP70 antibody

SL0126R

Product Name HSP70

Chinese Name 热休克蛋白-70 抗体

Alias HSP70; HSP-70; HSP 70; Heat shock 70 kDa protein 1; heat shock 70kDa protein 1A; Heat shock protein 1B; Heat shock induced protein; heat shock protein 70; HSP70 1; HSP70 2; HSP70.1; HSP70.2; HSPA1; HSPA1A; HSPA1B; XXbac BCX40G17.3 001; Heat shock 70 kDa protein 1A/1B; HSP71A_HUMAN; Hspa1a; Hsp70-1; HSP72; Hspa1; Hspa1b; Heat shock 70 kDa protein 1A/1B; Hsp70-1/2; HSP70-1/HSP70-2; HSP70.1/HSP70.2.

Research Area Tumour Signal transduction transcriptional regulatory factor

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human, Mouse, Rat, (predicted: Chicken, Dog, Pig, Rabbit,)
WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,Flow-Cytometry
(Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 70kDa

Cellular localization cytoplasmic

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human HSP70: 481-534/641

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic.

PubMed

applications.

[PubMed](#)

This intronless gene encodes a 70kDa heat shock protein which is a member of the heat shock protein 70 family. In conjunction with other heat shock proteins, this protein stabilizes existing proteins against aggregation and mediates the folding of newly translated proteins in the cytosol and in organelles involved in the ubiquitin-proteasome pathway through interaction with the AU-rich element RNA-binding protein 1. The gene is located in the major histocompatibility complex class III region, in a cluster of closely related genes which encode similar proteins. [provided by RefSeq, Jul 2008].

Function:

In cooperation with other chaperones, Hsp70s stabilize preexistent proteins against aggregation and assist in the folding of newly translated polypeptides in the cytosol as well as within organelles. These chaperones participate in all these processes through their ability to recognize nonnative conformations of other proteins. They bind extended peptide segments with a net hydrophobic character exposed by polypeptides during translation and membrane translocation, or following stress-induced damage. In case of rotavirus infection, Hsp70 serves as a post-attachment receptor for the virus to facilitate entry into the cell.

Subunit:

Component of the CatSper complex. Identified in a mRNP granule complex, at least composed of ACTN4, DHX9, ERG, HNRNPA1, HNRNPA2B1, HNRNPAB, HNRNPD, HNRNPL, HNRNPUL1, HNRNPU, HSPA1, HSPA8, IGF2BP1, ILF2, ILF3, NCBP1, NCL, PABPC1, PABPC4, PABPN1, RPS3, RPS3A, RPS4X, RPS8, RPS9, SYNCRIP, TROVE2, YBX1 and untranslated mRNAs. Interacts with TSC2. Interacts with IRAK1BP1. Interacts with TERT; the interaction occurs in the absence of the telomerase component, TERC, and dissociates once the TERT complex has formed. Interacts with DNAJC7 and with CHCHD3.

Product Detail

Subcellular Location:

Cytoplasm. Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

Tissue Specificity:

HSPA1B is testis-specific.

Similarity:

Belongs to the heat shock protein 70 family.

SWISS:

P0DMV8

Gene ID:

3303

Database links:

[Entrez Gene: 281825](#) Cow

[Entrez Gene: 3303](#) Human

[Entrez Gene: 3304](#) Human

[Entrez Gene: 15511](#) Mouse

[Entrez Gene: 193740](#) Mouse

[Entrez Gene: 24472](#) Rat

[Entrez Gene: 294254](#) Rat

[Omim: 140550](#) Human

[Omim: 603012](#) Human

[SwissProt: Q27975](#) Cow

[SwissProt: P0DMV8](#) Human

[SwissProt: P0DMV9](#) Human

[SwissProt: P17879](#) Mouse

[SwissProt: Q61696](#) Mouse

[SwissProt: Q07439](#) Rat

[Unigene: 274402](#) Human

[Unigene: 719966](#) Human

[Unigene: 728810](#) Human

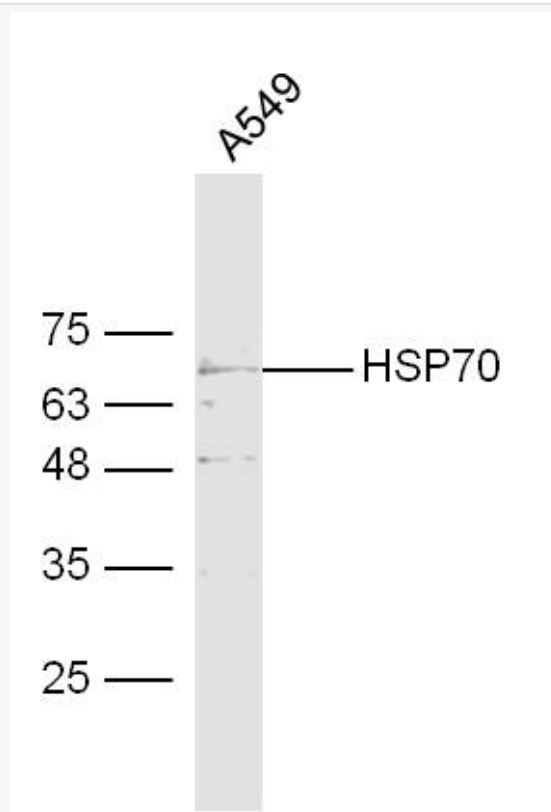
[Unigene: 1950](#) Rat

[Unigene: 228225](#) Rat

信号传导 (Signaling Intermediates)

HSP-70 是细胞受应激原刺激后诱导产生的一组应激蛋白，与 Tumour 发生、增殖及分化不
环境和病理性应激原均可导致肌体合成一组应急蛋白既热休克蛋白。许多热休克蛋白，
家族成员，均参与蛋白的变性-复性、折叠-解折叠、运输-易位、活化-非活化和分泌等过
HSP70 与类固醇受体、肌动蛋白、P53 等蛋白密切相关。HSP70 还参与热应激原、细胞毒
损伤所引起的应急反应，对机体起一定的保护作用。

**Product
Picture**



Sample:

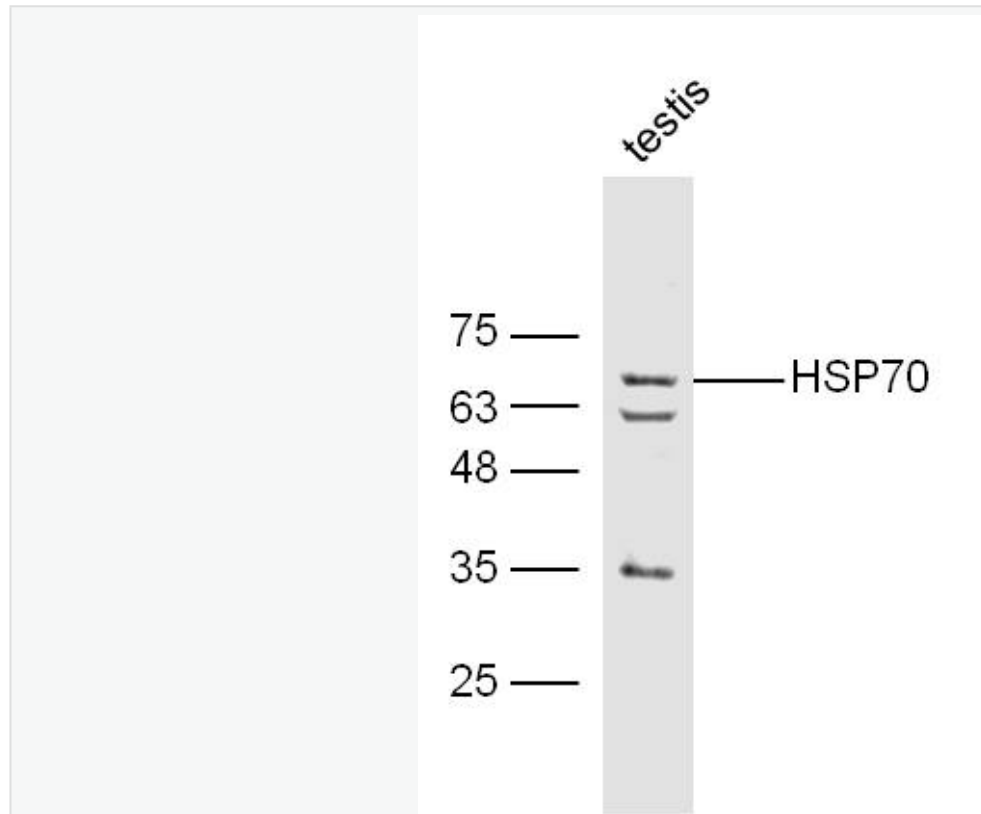
A549 Cell (Human) Lysate at 30 ug

Primary: Anti-HSP70 (SL 0126R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 70 kD

Observed band size: 70 kD



Sample:

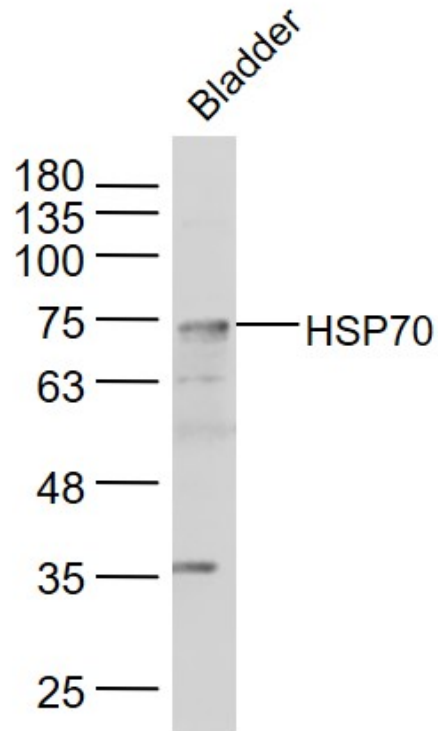
Testis (Mouse) Lysate at 40 ug

Primary: Anti-HSP70 (SL 0126R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 70 kD

Observed band size: 70 kD



Sample:

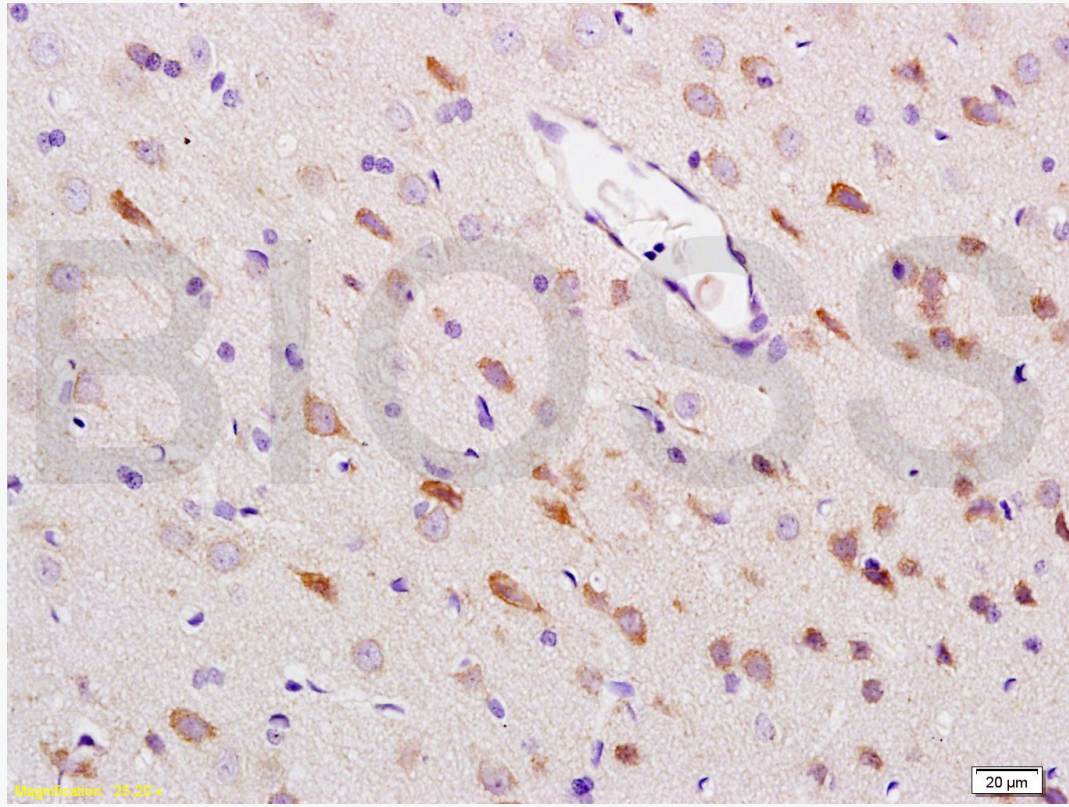
Bladder (Mouse) Lysate at 40 ug

Primary: Anti-HSP70 (SL0126R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 70 kD

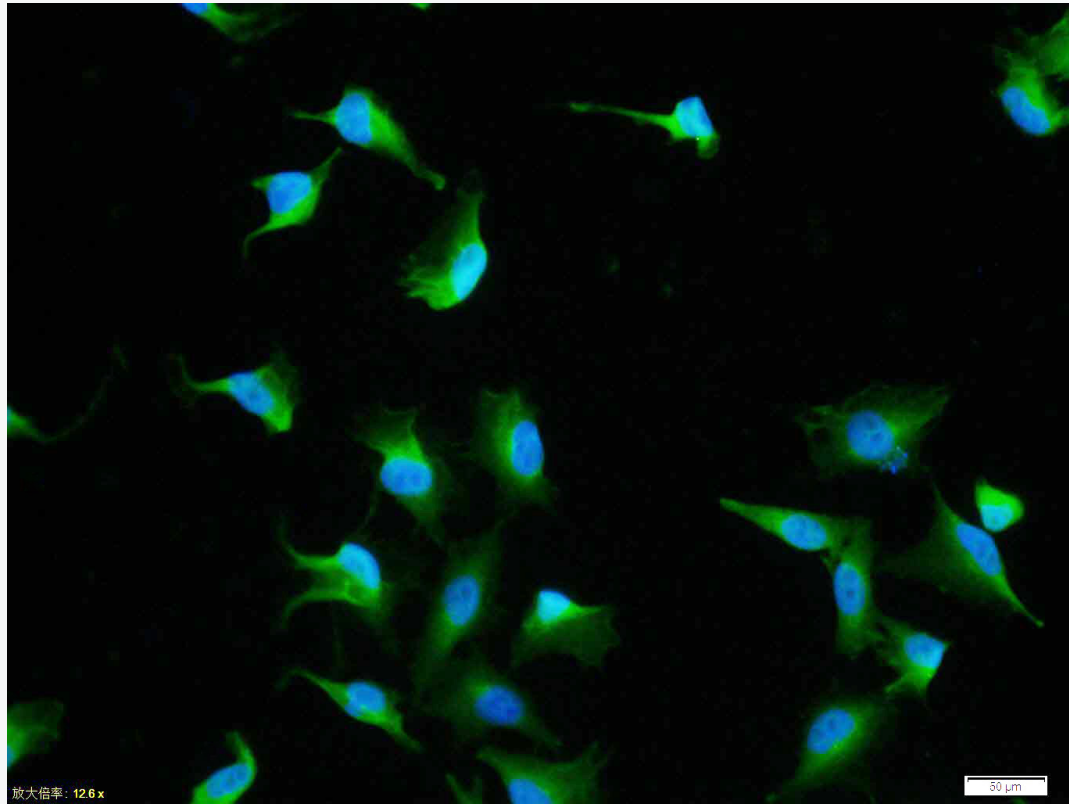
Observed band size: 70 kD



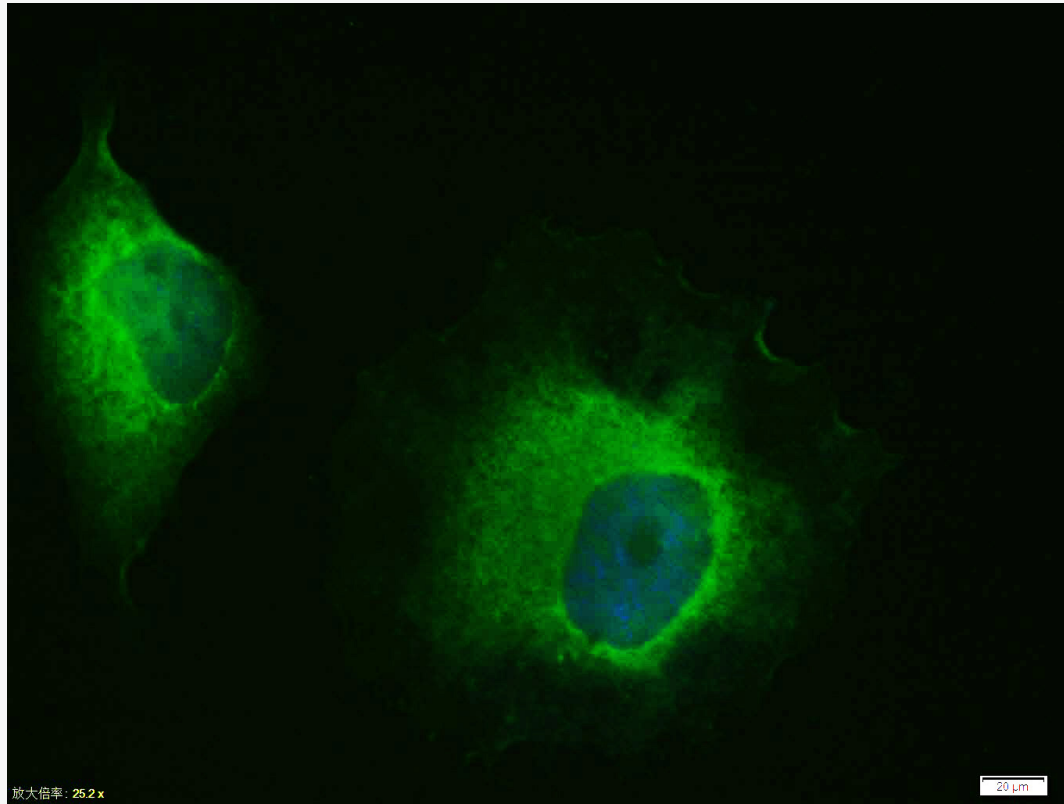
Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 1h

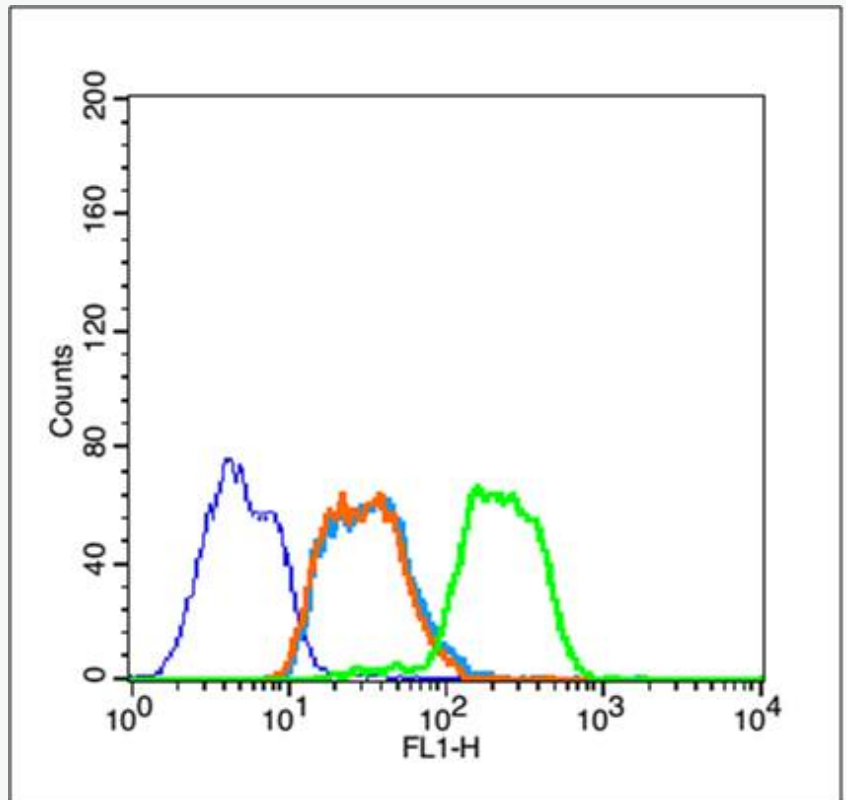
Incubation: Anti-HSP-70 Polyclonal Antibody, Unconjugated(SL0126R) 1:200, overnight at 4°C followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: A549 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (1) polyclonal Antibody, Unconjugated (SL0126R) 1:100, 90 minutes at 37°C; followed by a FITC conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) v stain the cell nuclei.



Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (HSP70) polyclonal Antibody, Unconjugated (SL0126R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain nuclei.



Blank control (blue line): Jurkat (blue).

Primary Antibody (green line): Rabbit Anti-HSP70 antibody (SL0126R)

Dilution: $1\mu\text{g}/10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC

Dilution: $1\mu\text{g}/\text{test}$.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-cold methanol for 30 min on ice. Cells stained with Primary Antibody for 30 min at room temperature. Cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-p



interactions followed by the antibody for 15 min at room temperature. The secondary antibody
min at room temperature. Acquisition of 20,000 events was performed.