

Rabbit Anti-HSP70 antibody

SL0244R

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

Research Area Tumour Cell biology immunology Signal transduction

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human,Mouse,Rat (predicted:Chicken,Cow,Rabbit,Sheep,Pig)
WB=1:1000-5000,IHC-P=1:200-1000,IHC-F=1:200-1000,ICC/IF=1:100-500,IF=1:200-1000,FI
(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: 500-600/641

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 d

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 assists in the folding of newly translated proteins in the cytosol and in organelles. It is also involved in the ubiquitin-proteasome pathway through interaction with the AU-rich element RNA-binding protein 1, located in the major histocompatibility complex class III region, in a cluster with two closely related genes that 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 facilitate all these processes through their ability to recognize nonnative conformations of other proteins. They bind to polypeptide segments with a net hydrophobic character exposed by polypeptides during translation and translocation, or following stress-induced damage. In case of rotavirus A infection, serves as a protein 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 DHX9, ERG, HNRNPA1, HNRNPA2B1, HNRNPAB, HNRNPD, HNRNPL, HNRNPR, HNRNPUB, HSPA8, IGF2BP1, ILF2, ILF3, NCBP1, NCL, PABPC1, PABPC4, PABPN1, RPLP0, RPS3, RPLP2, 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 RNA component, and dissociates once the TERT complex has formed. Interacts with DNAJC7. Interacts with CHCHD10.

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

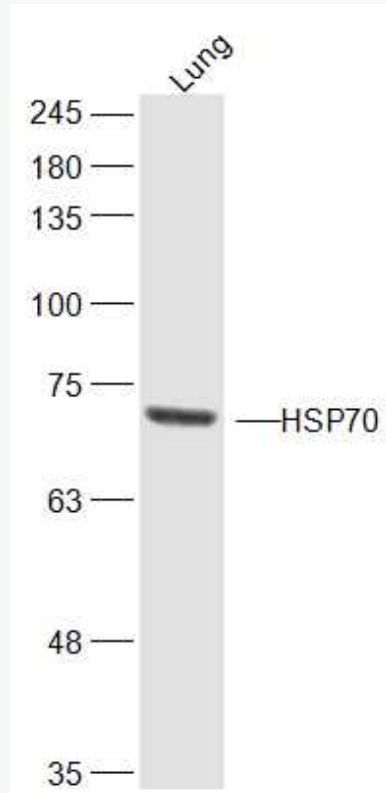
[Unigene: 728810](#) Human

[Unigene: 1950](#) Rat

[Unigene: 228225](#) Rat

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、增殖及分化不生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，包括 HS 均参与蛋白的变性-复性、折叠-解折叠、运输-易位、活化-非活化和分泌等过程。HSP70 肌动蛋白、P53 等蛋白密切相关。HSP70 还参与热应激原、细胞毒药物和其他损伤所引起机体起一定的保护作用。

**Product
Picture**



Sample:

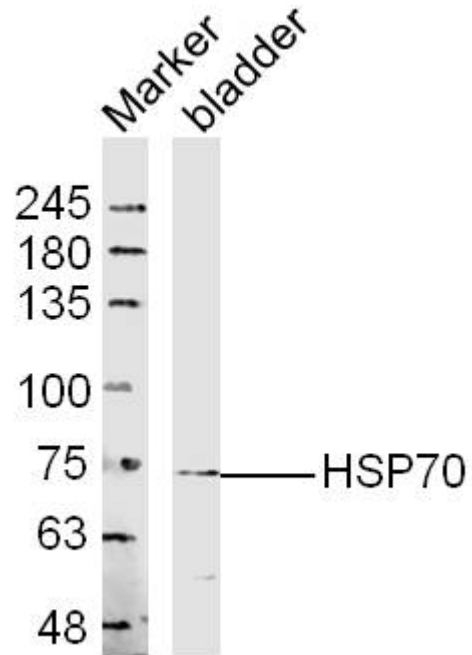
Lung (Mouse) Lysate at 40 ug

Primary: Anti-HSP70 (SL0244R) at 1/300 dilution

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

Predicted band size: 70 kD

Observed band size: 70 kD



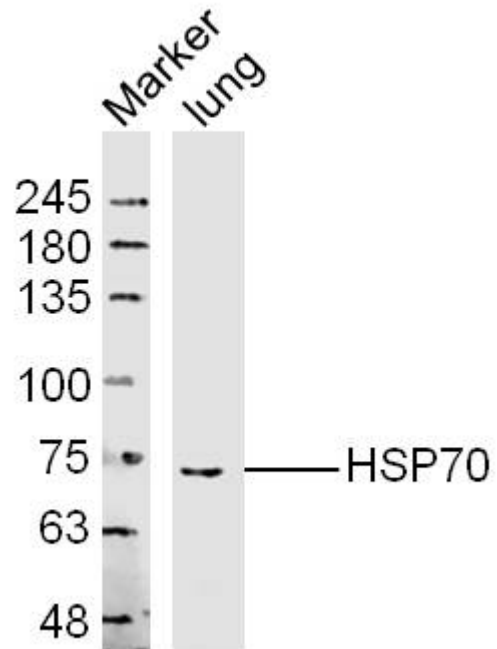
Sample: Bladder (Mouse) Lysate at 40 ug

Primary: Anti-HSP70 (SL0244R) at 1/300 dilution

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

Predicted band size: 70 kD

Observed band size: 70 kD



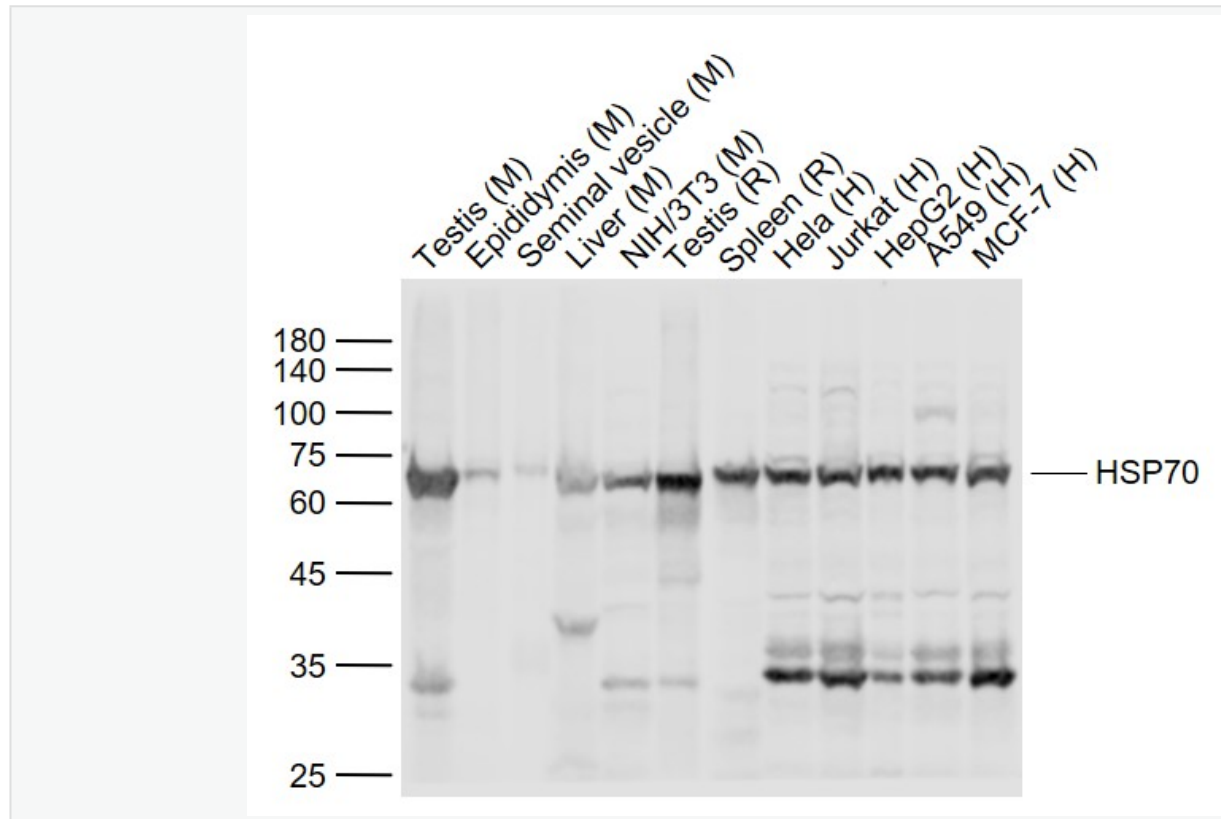
Sample: Lung (Mouse) Lysate at 40 ug

Primary: Anti-HSP70 (SL0244R) 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:

Lane 1: Testis (Mouse) Lysate at 40 ug

Lane 2: Epididymis (Mouse) Lysate at 40 ug

Lane 3: Seminal vesicle (Mouse) Lysate at 40 ug

Lane 4: Liver (Mouse) Lysate at 40 ug

Lane 5: NIH/3T3 (Mouse) Cell Lysate at 30 ug

Lane 6: Testis (Rat) Lysate at 40 ug

Lane 7: Spleen (Rat) Lysate at 40 ug

Lane 8: Hela (Human) Cell Lysate at 30 ug

Lane 9: Jurkat (Human) Cell Lysate at 30 ug

Lane 10: HepG2 (Human) Cell Lysate at 30 ug

Lane 11: A549 (Human) Cell Lysate at 30 ug

Lane 12: MCF-7 (Human) Cell Lysate at 30 ug

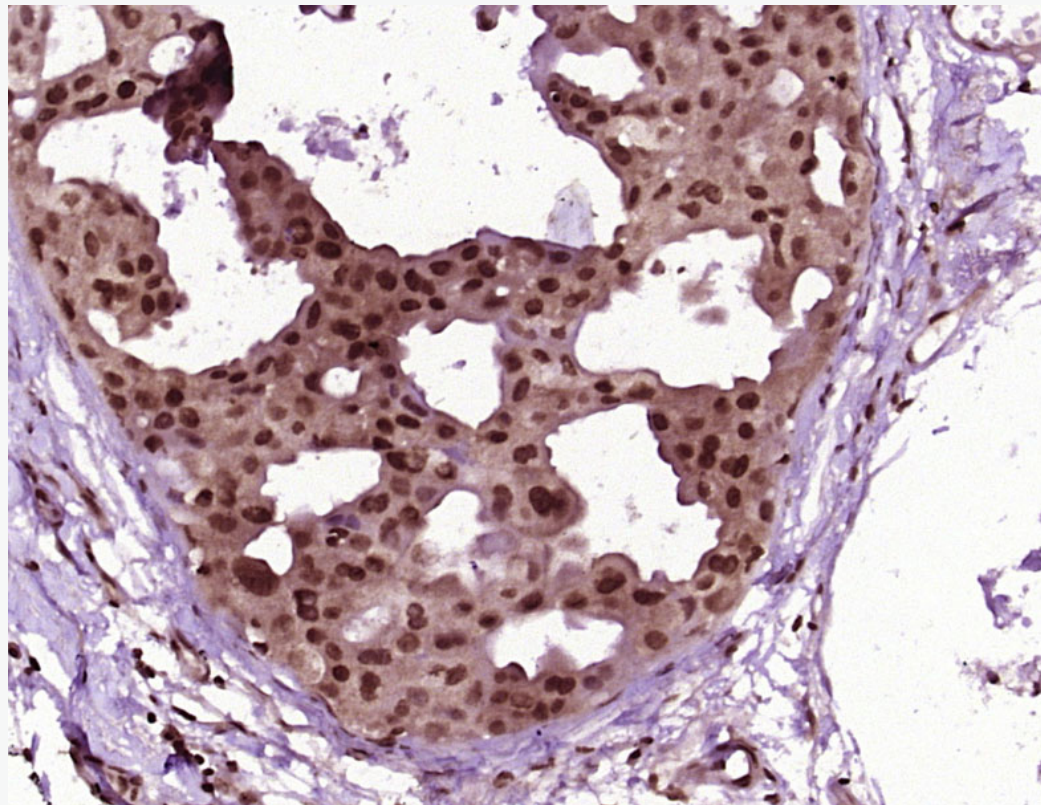
Primary:

Anti-HSP70 (SL0244R) at 1/1000 dilution

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

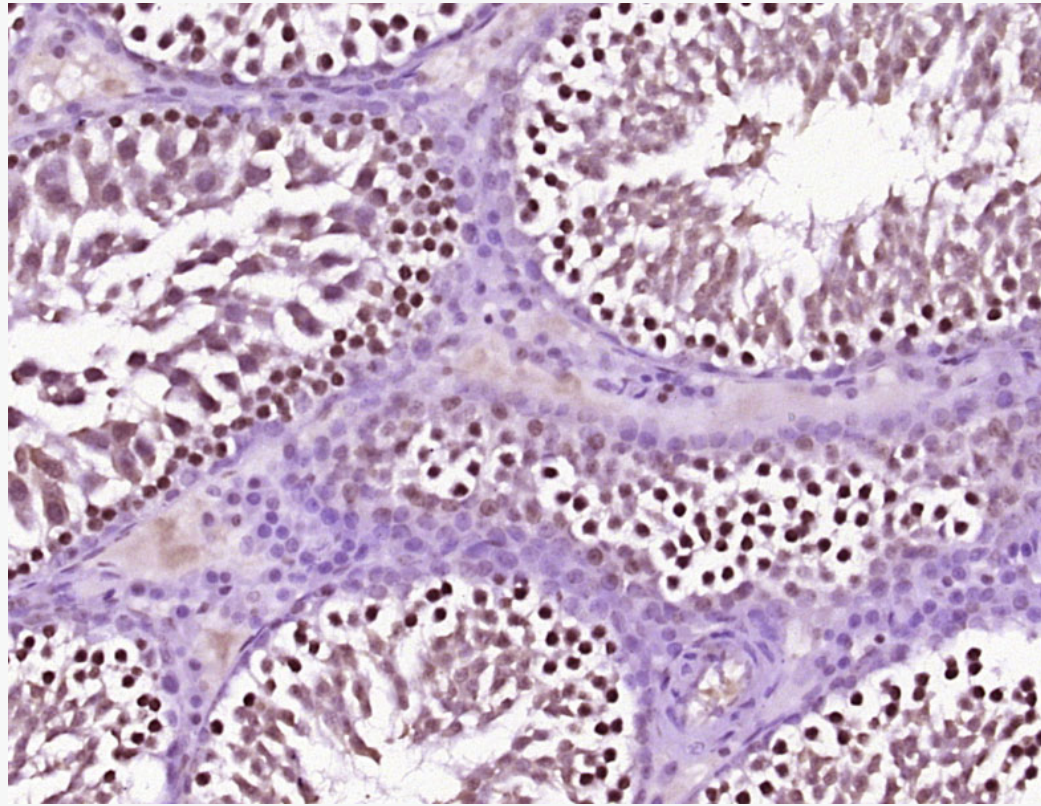
Predicted band size: 70 kD

Observed band size: 68 kD

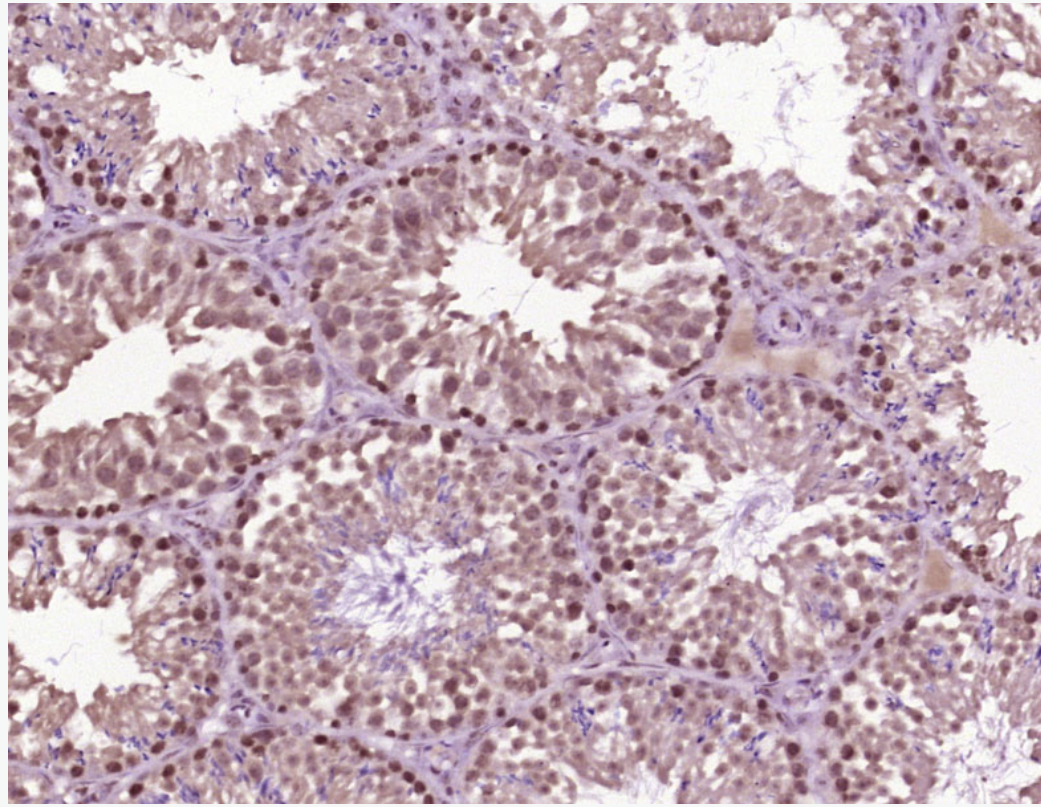


Paraformaldehyde-fixed, paraffin embedded (Human breast carcinoma); Antigen retrieval by b

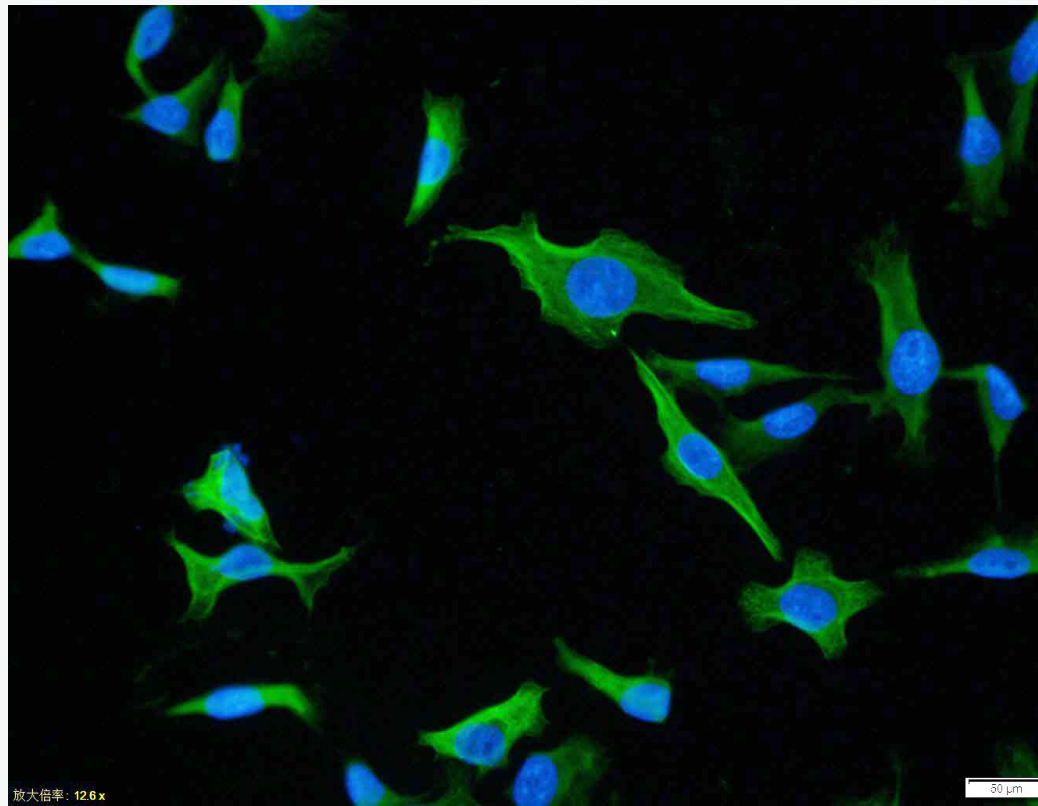
citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HSP70) Polyclonal Antibody, Unconjugated (SL0244R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



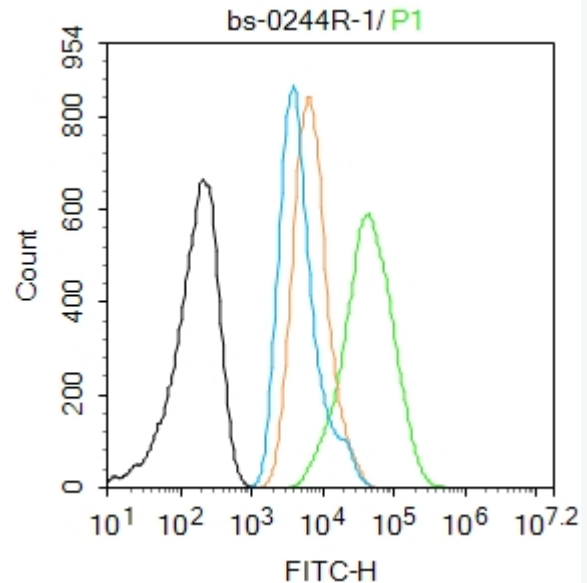
Paraformaldehyde-fixed, paraffin embedded (Rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HSP70) Polyclonal Antibody, Unconjugated (SL0244R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse testis); Antigen retrieval by boiling in so buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HSP70) Polyclonal Unconjugated (SL0244R) at 1:400 overnight at 4°C, followed by operating according to SP K (sp-0023) instructions and DAB staining.



Tissue/cell: U-87MG cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 30 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (1) polyclonal Antibody, Unconjugated (SL0244R) 1:100, 90 minutes at 37°C; followed by a FITC-Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain nuclei.



Blank control:A549.

Primary Antibody (green line): Rabbit Anti-HSP70 antibody (SL0244R)

Dilution: 1 μ g /10⁶ cells;

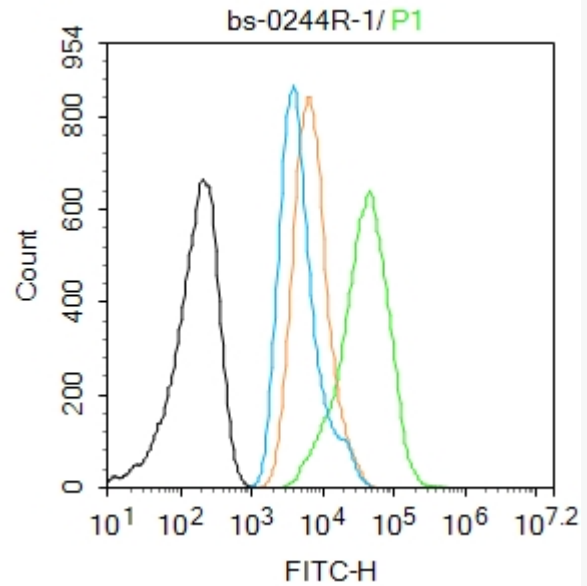
Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF488

Dilution: 1 μ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 95% methanol for 20 min at -20°C. The cells were then incubated in 5%BSA to block non-specific interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 cells per sample was performed.



Blank control:A549.

Primary Antibody (green line): Rabbit Anti-HSP70 antibody (SL0244R)

Dilution: 1 μ g /10⁶ cells;

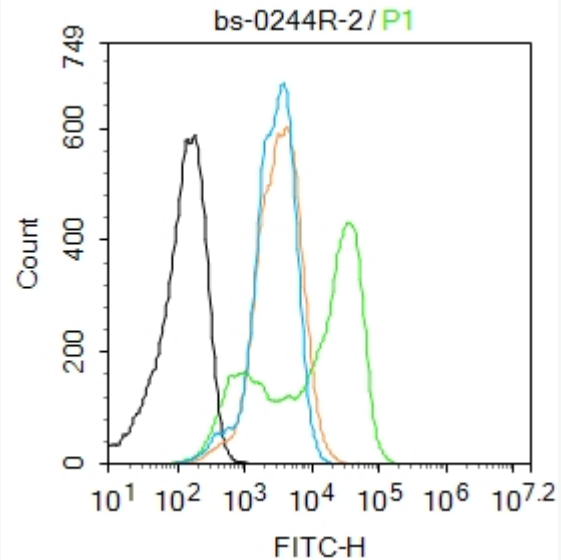
Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-AF488

Dilution: 1 μ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 95% methanol for 20 min at -20°C. The cells were then incubated in 5%BSA to block non-specific interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 cells was performed.



Blank control:293T.

Primary Antibody (green line): Rabbit Anti-HSP70 antibody (SL0244R)

Dilution: 2 μ g /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-FITC

Dilution: 1 μ g /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% Triton X-100 for 10 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 cells per sample was performed.