Data Sheet (Cat.No.TMAY-01972)

TargetMol

Anti-HSP70 Antibody (8S6)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	8S6
Purification:	Protein A

Applications

Verified Activity:

1. Immunofluorescence staining of Human HSPA1A in Hela cells. Cells were fixed with 4% PFA, permeabilzed with 0.3% Triton X-100 in PBS, blocked with 10% serum, and incubated with rabbit anti-Human HSPA1A monoclonal antibody (1:60) at 37°C 1 hour. Then cells were stained with the Alexa Fluor® 594-conjugated goat Anti-rabbit IgG secondary antibody (red) and counterstained with DAPI (blue). Positive staining was localized to cytoplasm.
2. Immunochemical staining of HSPA1A in human hepatoma with rabbit monoclonal antibody (1:1000, formalin-fixed paraffin embedded sections).
3. Immunochemical staining of HSPA1A in cynomolgus macaque testis with rabbit monoclonal antibody (1:1000, formalin-fixed paraffin embedded sections).
4. Flow cytometric analysis of Human HSPA1A expression on HeLa cells. The cells were treated according to manufacturer's manual (BD Pharmingen™ Cat. No. 554714), stained with purified anti-Human HSPA1A, then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.
5. Anti-HSPA1A rabbit monoclonal antibody at 1:500 dilution.
-Lane A: A549 whole cell Lysate.
-Lane B: HCT116 whole cell Lysate.
-Lane C: Hela whole cell Lysate.
-Lane D: HepG2 whole cell Lysate.
-Lane E: HL60 whole cell Lysate.
-Lane F: A431 whole cell Lysate.
-Lane G: MCF7 whole cell Lysate.
-Lane H: K562 whole cell Lysate.
-Lane I: C6 whole cell Lysate.
-Lane J: 293T whole cell Lysate.
-Lane K: MOLT4 whole cell Lysate.
-Lane L: Jurkat whole cell lysate.
-Lysates/proteins at 30 µg per lane.
-Secondary
-Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution.
-Developed using the Odyssey technique.
-Performed under reducing conditions.
-Predicted band size:70 kDa.
-Observed band size:70 kDa(We are unsure as to the identity of these extra bands.)
6. HSPA1A was immunoprecipitated using:
-Lane A:0.5 mg Hela Whole Cell Lysate.

	-2 μL anti-HSPA1A rabbit monoclonal antibody and 15 μl of 50 % Protein G agarose. -Primary antibody: -Anti-HSPA1A rabbit monoclonal antibody, at 1:200 dilution. -Secondary antibody: -Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution. -Developed using the odyssey technique. -Performed under reducing conditions. -Predicted band size: 70 kDa. -Observed band size: 70 kDa
Application:	ELISA,FCM,ICC/IF,IHC-P,IP,WB
Recommended	WB: 1:500-1:2000; ELISA: 1:5000-1:10000; IHC-P: 1:500-1:2000; ICC-IF: 1:20-1:100; FCM: 1:25-1:100; IP: 1-4 μL/mg of lysate

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human HSP70 / HSPA1A protein (TMPY-02443)
Antigen Species:	Human
Synonyms:	heat shock 70kDa protein 1A

Research Background

HSPA1A is a member of the Hsp70 protein family. The 70 kilodalton heat shock proteins (Hsp70s) are a family of ubiquitously expressed heat shock proteins. HSP are abundant and conserved proteins present in all cells. Upon temperature shock or other stress stimuli, HSP is synthesized intracellularly, which may protect cells from protein denaturation or death. Extracellularly, HSP can serve a cytokine function to initiate both innate and adaptive immunity through activation of APC. HSP serves also a chaperone function and facilitates the presentation of antigen peptide to T cells. Molecular chaperones of the Hsp70 family have diverse functions in cells. They assist the folding of newly synthesized and stress-denatured proteins, as well as the import of proteins into organelles, and the dissociation of aggregated proteins. The well-conserved Hsp70 chaperones are ATP dependent: binding and hydrolysis of ATP regulate their interactions with unfolded polypeptide substrates, and ATPase cycling is necessary for their function. All cellular functions of Hsp70 chaperones use the same mechanism of ATP-driven polypeptide binding and release.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481