Data Sheet (Cat.No.TMAY-01970)

Anti-HSP70 Antibody (1R755)

Product Details

Ig Type:	Mouse IgG2a
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	1R755
Purification:	Protein A

Applications

Verified Activity:	1. Anti-HSPA1A mouse monoclonal antibody at 1:500 dilution. -Lane A: A431 Whole Cell Lysate. -Lane B: A549 Whole Cell Lysate. -Lane C: HCT116 Whole Cell Lysate. -Lane D: Hela Whole Cell lysate. -Lysates/proteins at 30 µg per lane. -Secondary -Goat Anti-Mouse IgG (H+L)/HRP at 1/10000 dilution. -Developed using the ECL technique. -Performed under reducing conditions. -Predicted band size:70 kDa. -Observed band size:70 kDa. 2. HSPA1A was immunoprecipitated using: -Lane A:0.5 mg A431 Whole Cell Lysate. -Lane B:0.5 mg A549，Hela Whole Cell Lysate. -2 µL anti-HSPA1A mouse monoclonal antibody and 60 µg of Immunomagnetic beads Protein A/G. -Primary antibody: -Anti-HSPA1A mouse monoclonal antibody, at 1:100 dilution. -Secondary antibody: -Clean-Blot IP Detection Reagent (HRP) at 1:1000 dilution. -Developed using the ECL technique. -Performed under reducing conditions. -Predicted band size: 70 kDa. -Observed band size:71 kDa
Application:	ELISA,IP,WB
Recommended	WB: 1:500-1:2000; ELISA: 1:1000-1:2000; IP: 0.5-2 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 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.