

Hsc70 (Hsp73) Monoclonal Antibody (1B5), R-Phycoerythrin Conjugate

New Conjugate Forms
Now Available!
DyLight™ 488 & PE

Product Specifications

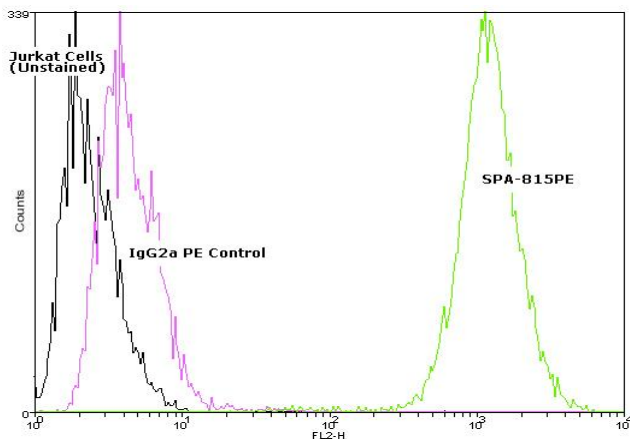
Catalog Number:	SPA-815PE
Host:	Rat
Isotype:	IgG _{2a}
Species Reactivity:	Human, monkey, mouse, hamster, guinea pig, rat, rabbit, cow, sheep, pig, dog, and chicken
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	Flow Cytometry: 10 µg/mL
Predicted M.W.:	~73 kDa
Concentration:	See product label
Purification:	Protein G Affinity
Format:	PBS, pH 7.2, 0.09% azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at 4°C
Immunogen:	Native hamster Hsc70 (Hsp73) protein
Related Products:	
NEW! SPA-815-488	Hsc70 (Hsp73) Monoclonal Antibody (1B5), DyLight™ 488 Conjugate
SPP-752	Hsc70 (Hsp73) Recombinant Protein (ATPase fragment)
NSP-555SPP-751LYC-HL101	Hsp70 (Hsp72) Recombinant Protein Hsc70 (Hsp73) Recombinant Protein HeLa Cell Lysate (Heat Shocked)

Background:

The 70 kDa heat shock protein Hsp70 belongs to the Hsp70 family of highly-related protein isoforms ranging in size from 66 kDa to 78 kDa. Hsc70 shares close biochemical and biological ties to Hsp70, and also belongs to the Hsp70 family. These proteins include cognate members found within major intracellular compartments and highly inducible isoforms predominantly cytoplasmic or nuclear in distribution¹. Members of the Hsp70 family function as molecular chaperones involved in such cellular functions as protein folding, transport, maturation and degradation, operating in an ATP-dependent manner. The molecular chaperones of the Hsp70 family recognize and bind to nascent polypeptide chains or partially folded intermediates of proteins, preventing their aggregation and misfolding, and the binding of ATP triggers a critical conformational change leading to the release of the bound substrate protein². Data demonstrates that with a ubiquitin-like domain at its amino terminus and its association with the 26S proteasome in HeLa cells, Bag-1 modulates the chaperone activity of Hsc70 and Hsp70. These findings reveal Bag-1's role as a physical link between the Hsc70/Hsp70 chaperone system and the proteasome³. Experimental data also shows that the ATPase domain and the substrate binding domain of Hsd70 cooperate to form a co-chaperone-chaperone complex with the synaptic vesicle cysteine string protein (csp), essential for normal neurotransmitter release⁴.

References:

1. Tavoria, M., *et al.* (1996) Cell Stress Chaperones **1**, 23-28.
2. Fink A.L. (1999) Physiol Rev. **79**, 425-449.
3. Luders, J., *et al.* (2000) J Biol Chem **275**, 4613-4617.
4. Stahl B., *et al.* (1999) Eur J Cell Biol. **78**, 375-381.



Flow cytometry analysis of 10⁶ Jurkat cells using Hsc70 (Hsp73) Monoclonal Antibody (1B5), R-Phycoerythrin Conjugate at a concentration of 10 µg/mL