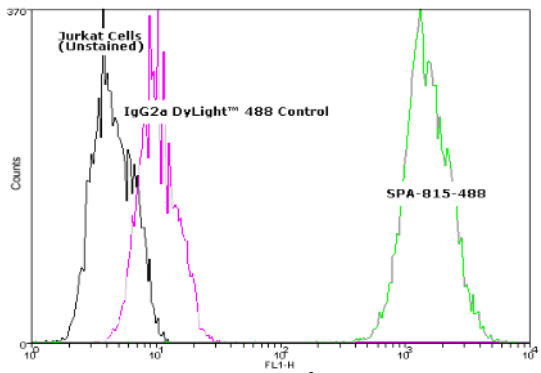
Hsc70 (Hsp73) Monoclonal Antibody (1B5), DyLight™ 488 Conjugate

Product Specifications

Catalog Number:	SPA-815-488
Host:	Rat
Isotype:	IgG_{2a}
Species Reactivity:	Human, monkey, mouse, hamster, guinea pig, rat, rabbit, cow, sheep, pig, dog, and chicken
Applications: *The optimal dilution for a specific application must be determined by the investigator*	Flow Cytometry: 50 µg/mL
Predicted M.W.:	~73 kDa
Concentration:	See product label
Purification:	Protein G Affinity
Format:	PBS, pH 7.2, 0.09% azide
Storage: *Shipping conditions may differ from the recommended storage temperature*	Store at -20°C
Immunogen:	Native hamster Hsc70 (Hsp73) protein

Related Products:

NEW!	SPA-815PE	Hsc70 (Hsp73) Monoclonal Antibody (1B5), R-Phycoerythrin Conjugate
	SPP-752	Hsc70 (Hsp73) Recombinant Protein (ATPase fragment)
	NSP-555	Hsp70 (Hsp72) Recombinant Protein
	SPP-751	Hsc70 (Hsp73) Recombinant Protein
	LYC-HL101	HeLa Cell Lysate (Heat Shocked)



Flow cytometry analysis of 10^6 Jurkat cells using Hsc70 (Hsp73) Monoclonal Antibody (1B5), DyLight™ 488 Conjugate at a concentration of 50 µg/mL

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 distribution[1]. 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 protein[2]. Data demonstrates that with a ubiquitin-like domain at its amino terminus and its association with the 26S proteosome 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 proteasome[3]. 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 release[4].

References:

1. Tavaria, 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.