



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## Anti-HSP70 Antibody [7FB]

Rat Anti-Drosophila HSP70 Monoclonal IgG2B  
Catalog No. SMC-230



Discovery through partnership | Excellence through quality

### Overview

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#### Product Name

HSP70 Antibody

#### Description

Rat Anti-Drosophila HSP70 Monoclonal IgG2B

#### Species Reactivity

Fruit Fly (*Drosophila melanogaster*)

#### Applications

WB, ICC/IF, ELISA

#### Antibody Dilution

WB (1:2000); optimal dilutions for assays should be determined by the user.

#### Host Species

Rat

#### Immunogen Species

*Drosophila*

#### Immunogen

Prepared from *Drosophila* tissue culture cells heat shocked at 36.5°C for 3 hours, and isolated using SDS PAGE.

#### Concentration

1 mg/ml

#### Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

### Properties

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#### Storage Buffer

PBS pH7.4, 50% glycerol, 0.1% sodium azide

#### Storage Temperature

-20°C

#### Shipping Temperature

Blue Ice or 4°C

#### Purification

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Protein G Purified

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**Clonality**

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Monoclonal

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**Clone Number**

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7FB

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**Isotype**

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IgG2b

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**Specificity**

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Detects ~70kDa (heat-inducible form).

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**Cite This Product**

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Rat Anti-Drosophila HSP70 Monoclonal, Clone 7FB (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-230)

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**Certificate Of Analysis**

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1 µg/ml of SMC-230 was sufficient for detection of Drosophila HSP70 using an indirect assay with rabbit anti-rat IgG and goat anti-rabbit IgG:HRP.

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**Biological Description**

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**Alternative Names**

HSP70Bb Antibody, Heat Shock Protein 70Bb Antibody, dHSP70 Antibody, HSP70b Antibody, HSP70B Antibody, Dm-HSP70 Antibody

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**Research Areas**

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Cancer, Heat Shock

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**Accession Number**

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NP\_524927.2

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**Gene ID**

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48582

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**Swiss Prot**

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Q9BIS2

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**Scientific Background**

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HSP70 genes encode abundant heat-inducible 70-kDa HSPs (HSP70s). In most eukaryotes HSP70 genes exist as part of a multigene family. They are found in most cellular compartments of eukaryotes including nuclei, mitochondria, chloroplasts, the endoplasmic reticulum and the cytosol, as well as in bacteria. The genes show a high degree of conservation, having at least 50% identity (2). The N-terminal two thirds of HSP70s are more conserved than the C-terminal third. HSP70 binds ATP with high affinity and possesses a weak ATPase activity which can be stimulated by binding to unfolded proteins and synthetic peptides (3). When HSC70 (constitutively expressed) present in mammalian cells was truncated, ATP binding activity was found to reside in an N-terminal fragment of 44 kDa which lacked peptide binding capacity. Polypeptide binding ability therefore resided within the C-terminal half (4). The structure of this ATP binding domain displays multiple features of nucleotide binding proteins (5). All HSP70s, regardless of location, bind proteins, particularly unfolded ones. The molecular chaperones of the HSP70 family recognize and bind to nascent polypeptide chains as well as partially folded intermediates of proteins preventing their aggregation and misfolding. The binding of ATP triggers a critical conformational change leading to the release of the bound substrate protein (6). The universal ability of HSP70s to undergo cycles of binding to and release from hydrophobic stretches of partially unfolded proteins determines their role in a great variety of vital intracellular functions such as protein synthesis, protein folding and oligomerization and protein transport. Looking for more information on HSP70? Visit our new HSP70 Scientific Resource Guide at <http://www.HSP70.com>.

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## References

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  4. DeLuca-Flaherty et al. (1990) Cell 62: 875-887.
  5. Bork P., Sander C. & Valencia A. (1992) Proc. Natl Acad. Sci. USA 89: 7290-7294.
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  7. Galan A., et al. (2000) J. Biol. Chem. 275: 11418-11424.
  8. Kondo T., et al. (2000) J. Biol. Chem. 275: 8872-8879.
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  14. Banduseela V.C., et al. (2009) Physiol Genomics. 39(3): 141-159.
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## Product Images

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Currently there are no images for this product

## Product Citations (1)

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### Western Blot

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#### **The heat shock response restricts virus infection in Drosophila.**

Merkling, S.H. et al. -2015 Sci Rep. 5:12758.

**PubMed ID:** 26234525    **Reactivity:** Drosophila    **Applications:** Western Blot

## Reviews

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Based on validation through cited publications.



**StressMarq Biosciences**

June 14, 2016: