



# SZABO SCANDIC

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## Produktinformation



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Diagnostik & molekulare Diagnostik



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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# Anti-HSP70/HSC70 (Plant) Antibody [5G1-95]

Mouse Anti-Plant HSP70/HSC70 Monoclonal IgG1  
Catalog No. SMC-120



Discovery through partnership | Excellence through quality

## Overview

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### Product Name

HSP70/HSC70 (Plant) Antibody

### Description

Mouse Anti-Plant HSP70/HSC70 Monoclonal IgG1

### Species Reactivity

Plant

### Applications

WB, ELISA

### Antibody Dilution

WB (1:1000); optimal dilutions for assays should be determined by the user.

### Host Species

Mouse

### Immunogen Species

Plant

### Immunogen

Purified HSP70 from Phaseolus aureus (mung bean)

### 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, 0.09% sodium azide

### Storage Temperature

-20°C

### Shipping Temperature

Blue Ice or 4°C

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**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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5G1-95

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**Isotype**

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IgG1

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**Specificity**

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Detects ~70kDa. Recognizes constitutive and inducible plants HSP70 (HSC70/HSP72). Does not cross-react with Human, Rat, bacteria (DNAK) or Human Bip.

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**Cite This Product**

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Mouse Anti-Plant HSP70/HSC70 Monoclonal, Clone 5G1-95 (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-120)

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**Certificate Of Analysis**

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1 µg/ml of SMC-120 was sufficient for detection of HSP70/HSC70 in 20 µg of Phaseolus aureus (mung bean) lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

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## Biological Description

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**Alternative Names**

HSC54 Antibody, HSC70 Antibody, HSC71 Antibody, HSP70 1 Antibody, HSP701/HSP70 2 Antibody, HSP70.1 Antibody, HSP71 Antibody, HSP72 Antibody, HSP73 Antibody, HSPA1 Antibody, HSPA10 Antibody, HSPA1A Antibody, HSPA1B Antibody, LAP1 Antibody, NIP71 Antibody

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**Research Areas**

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Cancer, Heat Shock

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**Cellular Localization**

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Cytoplasm

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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 (1). 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 (2). 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 (3). The structure of this ATP binding domain displays multiple features of nucleotide binding proteins (4). 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 (5). 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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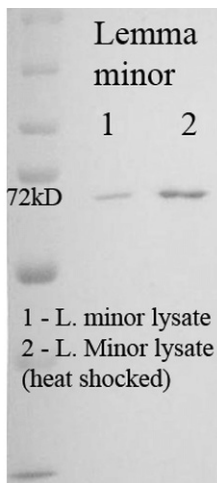
**References**

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1. Boorstein W. R., Ziegelhoffer T. & Craig E. A. (1993) J. Mol. Evol. 38 (1): 1-17.
  2. Rothman J. (1989) Cell 59: 591-601.
  3. DeLuca-Flaherty et al. (1990), Cell 62: 875-887.
  4. Bork P., Sander C. & Valencia A. (1992) Proc. Natl Acad. Sci. USA 89: 7290-7294.
  5. Fink A.L. (1999) Physiol. Rev. 79: 425-449.
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## Product Images

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Western Blot analysis of Duckweed (Lemma minor) Heat Shocked cell lysates showing detection of Hsp70 protein using Mouse Anti-Hsp70 Monoclonal Antibody, Clone 5G1-95 (SMC-120). Primary Antibody: Mouse Anti-Hsp70 Monoclonal Antibody (SMC-120) at 1:1000.

## Product Citations (0)

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Currently there are no citations for this product.

## Reviews

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There are no reviews yet.