



# 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-GRP78 (Bip) Antibody

Rabbit Anti-Human GRP78 (Bip) Polyclonal  
Catalog No. SPC-180



Discovery through partnership | Excellence through quality

## Overview

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### Product Name

GRP78 (Bip) Antibody

### Description

Rabbit Anti-Human GRP78 (Bip) Polyclonal

### Species Reactivity

Dog, Human, Mouse, Rat, Fruit Fly (*Drosophila melanogaster*)

### Applications

WB, IHC, ICC/IF, ELISA

### Antibody Dilution

WB (1:2000), ICC/IF (1:100); optimal dilutions for assays should be determined by the user.

### Host Species

Rabbit

### Immunogen Species

Human

### Immunogen

Full length human GRP78 (Bip) his tagged at the N terminus

### 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, 50% glycerol, 0.09% sodium azide

### Storage Temperature

-20°C

### Shipping Temperature

Blue Ice or 4°C

### Purification

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Protein A purified

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### Clonality

Polyclonal

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### Specificity

Detects ~78kDa.

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### Cite This Product

Rabbit Anti-Human GRP78 Polyclonal (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPC-180)

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### Certificate Of Analysis

0.5 µg/ml of SPC-180 was sufficient for detection of Grp78 in 10 µg of rat tissue lysate by ECL immunoblot analysis using goat anti-rabbit IgG:HRP as the secondary antibody.

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## Biological Description

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### Alternative Names

BIP Antibody, Grp78 Antibody, HSPA5 Antibody, MIF2 Antibody, immunoglobulin heavy chain binding protein Antibody

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### Research Areas

Cancer, Heat Shock, Cell Signaling, Chaperones, Organelle Markers, Trafficking

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### Cellular Localization

Endoplasmic Reticulum, Endoplasmic reticulum membrane, Melanosome

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### Accession Number

NP\_005338.1

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### Gene ID

3309

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### Swiss Prot

P11021

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### Scientific Background

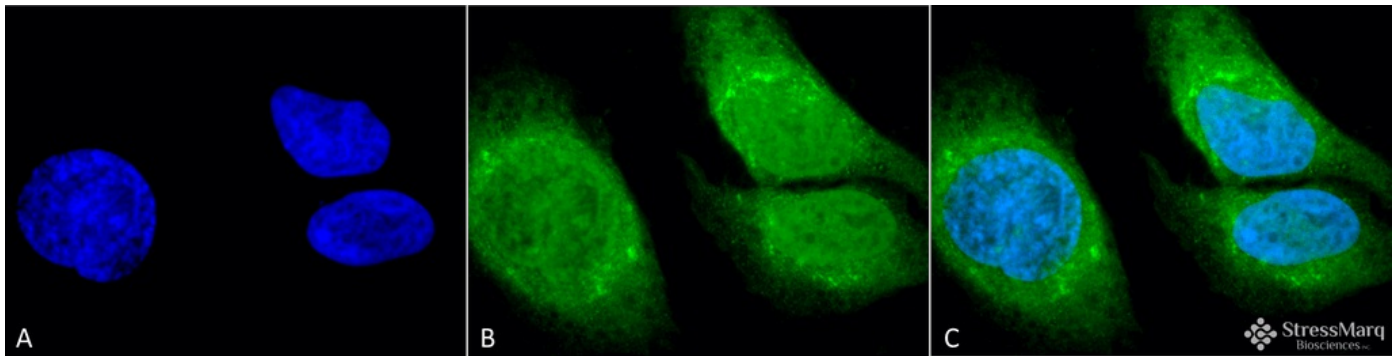
GRP78 is a ubiquitously expressed, 78-kDa glucose regulated protein, and is commonly referred to as an immunoglobulin chain binding protein (BiP). The BiP proteins are categorized as stress response proteins because they play an important role in the proper folding and assembly of nascent protein and in the scavenging of misfolded proteins in the endoplasmic reticulum lumen. Translation of BiP is directed by an internal ribosomal entry site (IRES) in the 5' non-translated region of the BiP mRNA. BiP IRES activity increases when cells are heat stressed (1). GRP78 is also critical for maintenance of cell homeostasis and the prevention of apoptosis (2). Luo et al. have provided findings that suggest GRP78 is essential for embryonic cell growth and pluripotent cell survival (3). In terms of diseases, GRP78 has been shown to be a reliable biomarker of hypoglycemia, to serve a neuroprotective function in neurons exposed to glutamate and oxidative stress (4), and its protein levels are reduced in the brains of Alzheimer's patients (5). Also, the induction of the GRP78 protein that results in severe glucose and oxygen deprivation could possibly lead to drug resistance to anti-tumor drugs (6, 7).

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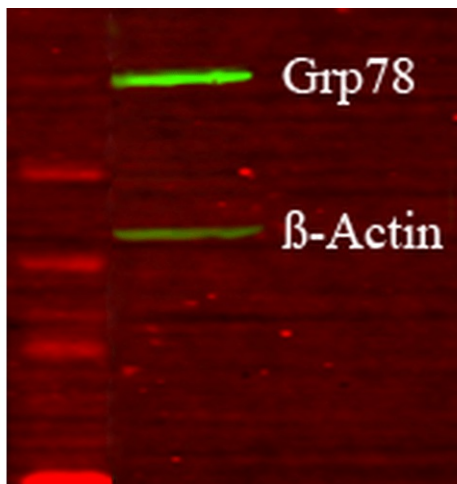
### References

1. Cho S., et al. (2007) Mol Cell Biol. 27(1): 368-83.
2. Yang Y., et al. (1998) J Biol Chem. 273: 25552-25555.
3. Luo S., et al (2006) 26 (15): 5688-97.
4. Yu Z., et al. (1999) Exp Neurol. 15: 302-314.
5. Koomagi R., et al. (1999) Anticancer Res. 19: 4333-4336.
6. Laquerre S., et al. (1998) J. Virology. 72: 4940-4949.

## Product Images



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GRP78 (Bip) Polyclonal Antibody (SPC-180). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-GRP78 (Bip) Polyclonal Antibody (SPC-180) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen. Melanosome. Cytoplasm. Nucleus. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-GRP78 (Bip) Antibody. (C) Composite. Heat Shocked at 42°C for 1h.



Western blot analysis of Human Glucose deprived glia cell lysates showing detection of GRP78 protein using Rabbit Anti-GRP78 Polyclonal Antibody (SPC-180). Primary Antibody: Rabbit Anti-GRP78 Polyclonal Antibody (SPC-180) at 1:1000.

## Product Citations (2)

### Western Blot

#### **Attenuation of unfolded protein response and apoptosis by mReg2 induced GRP78 in mouse insulinoma cells.**

Liu, L., Chowdhury, S., Fang, X., Liu, J. L., Srikant, C.B. (2014) FEBS Lett. 588(11):2016-24.

**PubMed ID:** 24801175 **Reactivity:** Mouse **Applications:** Western Blot

### Immunohistochemistry

#### **Xbp1-Independent Ire1 Signaling Is Required for Photoreceptor Differentiation and Rhabdomere Morphogenesis in Drosophila.**

Coelho D.S. et al. (2013) Cell Rep. 5(3):791-801.

**PubMed ID:** 24183663 **Reactivity:** Drosophila **Applications:** Immunohistochemistry

## Reviews

Based on validation through cited publications.



**StressMarq Biosciences**

June 15, 2016: