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# Datasheet for ABIN2486749 anti-GRP78 antibody (Atto 488)

6 Images



### Overview

Quantity:	200 µL
Target:	GRP78 (HSPA5)
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GRP78 antibody is conjugated to Atto 488
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC), Immunoprecipitation (IP)

# Product Details

Immunogen:	Rat GRP78 (Bip) synthetic peptide conjugated to KLH
Specificity:	Detects ~78 kDa.
Cross-Reactivity:	Cow, Dog, Fusarium, Hamster, Human, Monkey, Mouse, Rabbit, Rat, Xenopus laevis
Purification:	Peptide Affinity Purified

## **Target Details**

Target:	GRP78 (HSPA5)
Alternative Name:	GRP78 (HSPA5 Products)
Background:	GRP78 is a ubiquitously expressed, 78- kDa glucose regulated protein, and is commonly referred to as an immunoglobin chain binding protein (BiP). The BiP proteins are categorized as stress response proteins because they play an important role in the proper folding and

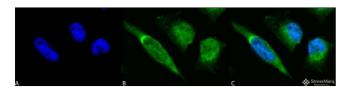
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	assembly of nascent protein and in the scavenging of misfolded proteins in the endoplasmic
	reticulum lumen. Translation of BiP is directed by an internal ribosomal entry site (IRES) in the
	5' non-translated region of the BiP mRNA. BiP IRES activity 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 possible lead to drug resistance to anti-tumor drugs (6, 7).
Gene ID:	25617
NCBI Accession:	NP_037215
UniProt:	P06761
Pathways:	Thyroid Hormone Synthesis, ER-Nucleus Signaling
Application Details	
Application Notes:	• WB (1:1000)
	• ICC/IF (1:100)
	<ul> <li>optimal dilutions for assays should be determined by the user.</li> </ul>
Comment:	A 1:1000 dilution of ABIN2486749 was sufficient for detection of Grp78 in 10 $\mu$ g of rat tissue
	lysate by ECL immunoblot analysis.
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which
	should be handled by trained staff only.
Storage:	4 °C

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### Images





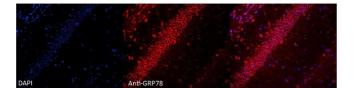
#### Immunohistochemistry

**Image 1.** Immunohistochemistry analysis using Rabbit Anti-GRP78 Polyclonal Antibody (ABIN2486749). Tissue: Hippocampal Section. Species: Mouse. Fixation: 4 % Formaldehyde for 12 hours at RT. Paraffin embedded. Primary Antibody: Rabbit Anti-GRP78 Polyclonal Antibody (ABIN2486749) at 1:100 for 12 hours at 4 °C. Secondary Antibody: Alexa Fluor 555 Goat Anti-Rabbit at 1:250 for 1 hour at RT. Counterstain: Hoechst at 1:1000 for 10 min at RT. Localization: Grp78 staining in mouse pyramidal cell layer. Magnification: 20x. Slice thickness: 7 µm. Courtesy of: Rachel Reith, NIH/NIMH.

#### Immunofluorescence (fixed cells)

**Image 2.** Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GRP78 Polyclonal Antibody . Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-GRP78 Polyclonal Antibody 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 . Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-GRP78 Antibody. (C) Composite. Heat Shocked at 42°C for 30 min.

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#### Immunofluorescence (fixed cells)

**Image 3.** Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GRP78 Polyclonal Antibody . Tissue: Hippocampal Section. Species: Mouse. Fixation: 4% Formaldehyde for 12 hours at RT. Paraffin embedded.. Primary Antibody: Rabbit Anti-GRP78 Polyclonal Antibody at 1:100 for 12 hours at 4°C. Secondary Antibody: Alexa Fluor 555 Goat Anti-Rabbit at 1:250 for 1 hour at RT. Counterstain: Hoechst at 1:1000 for 10 min at RT. Localization: Grp78 staining in mouse pyramidal cell layer.. Magnification: 20x. Slice thickness: 7 microns . Courtesy of: Rachel Reith, NIH/NIMH..

Please check the product details page for more images. Overall 6 images are available for ABIN2486749.