

Rabbit GRP78 (Bip) Polyclonal Antibody | anti-Hspa5 antibody

GRP78 Antibody: ATTO 488

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103566	Rabbit	Human, Mouse, Rat, Cow, Fungus (<i>Cryptonectria parasitica</i>), Hamster, Monkey, Rabbit, Xenopus	Immunofluorescence, Western Blot

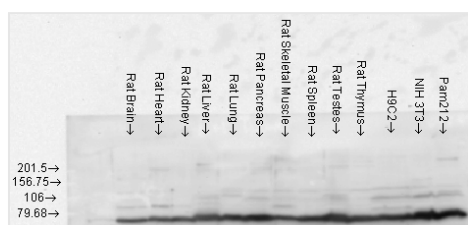
PRODUCT SYNONYMS

GRP78 (Bip); Polyclonal Antibody; GRP78 Antibody: ATTO 488; BIP; Grp78; Hspa5; MIF2; immunoglobulin heavy chain binding protein; anti-Hspa5 antibody

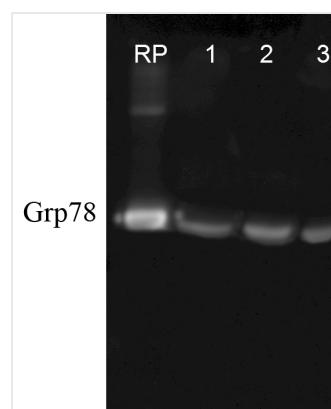
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Cow, Fungus (<i>Cryptonectria parasitica</i>), Hamster, Monkey, Rabbit, Xenopus
Clonality	Polyclonal
Form/Format	Rabbit Antiserum
Sequence Length	654
Applicable Applications for anti-Hspa5 antibody	IF (Immunofluorescence), WB (Western Blot)
Conjugate	ATTO 488
Storage Buffer	Rabbit antiserum
Preparation and Storage	-20 degree C

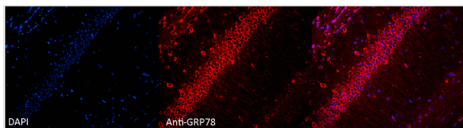
IMAGES



WB (Western Blot)



WB (Western Blot)



ICC (Immunocytochemistry)

Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GRP78 Polyclonal Antibody (SPC-107). Tissue: Hippocampal Section. Species: Mouse. Fixation: 4% Formaldehyde for 12 hours at RT. Paraffin embedded. Primary Antibody: Rabbit Anti-GRP78 Polyclonal Antibody (SPC-107) at 1:100 for 12 hours at 4 degree 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

ADDITIONAL INFORMATION

Related Product Information for anti-Hspa5 antibody	Background Info: Detects a protein with a mass of ~78kDa corresponding to Grp78. 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 possible lead to drug resistance to anti-tumor drugs (6, 7).
Product Categories/Family for anti-Hspa5 antibody	Chaperones ; Heat Shock ; Organelle Markers ; Trafficking
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. 7. Dong, D. et al. (2005) Cancer Res 65(13): 5785-91.

NCBI AND UNIPROT INFORMATION

NCBI GI #	25742763
NCBI GeneID	25617
NCBI Accession #	NP_037215.1
NCBI GenBank Nucleotide #	NM_013083.2
UniProt Accession #	P06761
Molecular Weight	72,347 Da
NCBI Official Full Name	78 kDa glucose-regulated protein
NCBI Official Synonym Full Names	heat shock protein 5
NCBI Official Symbol	Hspa5
NCBI Official Synonym Symbols	BIP; GRP78
NCBI Protein Information	78 kDa glucose-regulated protein; GRP 78; GRP-78; heat shock 70kD protein 5; heat shock 70 kDa protein 5; steroidogenesis-activator polypeptide; immunoglobulin heavy chain-binding protein; heat shock 70kDa protein 5 (glucose-regulated protein)
UniProt Protein Name	78 kDa glucose-regulated protein
UniProt Gene Name	Hspa5

UniProt Synonym Gene Names	Grp78; GRP-78; BiP
UniProt Entry Name	GRP78_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/grp78-bip-antibody-immunofluorescence-western-blot-elisa/103566>