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Datasheet for 100-401-F38

GRP78 Antibody

Overview

Description:	Anti-GRP78 (RABBIT) Antibody - 100-401-F38
Item No.:	100-401-F38
Size:	200 µL
Applications:	IF, WB
Reactivity:	Human, Mouse, Rat, Bovine, Cryphonectria parasitica, Hamster, Monkey, Rabbit, Xenopus
Host Species:	Rabbit

Product Details

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 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' nontranslated region of the BiP mRNA. BiP IRES activity increases when cells are heat stressed. GRP78 is also critical for maintenance of cell homeostasis and the prevention of apoptosis. Luo et al. have provided findings that suggest GRP78 is essential for embryonic cell growth and pluripotent cell survival.
Synonyms:	BiP, Grp78, HspA5, MIF2, immunoglobulin heavy chain binding protein, 78 kDa glucose-regulated protein, Heat shock 70 kDa protein 5, Endoplasmic reticulum lumenal Ca(2+)-binding protein grp78
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	Hspa5
Reactivity:	Human, Mouse, Rat, Bovine, Cryphonectria parasitica, Hamster, Monkey, Rabbit, Xenopus
Immunogen Type:	Conjugated Peptide

Immunogen:	Grp78 Antibody was produced from whole rabbit serum prepared by repeated immunizations with rat GRP78 (Bip) synthetic peptide conjugated to KLH.
Purity/Specificity:	Anti-GRP78 Antibody was prepared from monospecific antiserum by delipidation and defibrination. A BLAST analysis was used to suggest cross-reactivity with GRP78 from Human, Mouse, Rat, Cow, Fungus (Cryphonectria parasitica), Hamster, Monkey, Rabbit, Xenopus based on 100% homology with the immunizing sequence. Cross-reactivity with GRP78 from other sources has not been determined. Heat Shock research.
Relevant Links:	• NCBI - NP_037215.1 • GeneID - 25617 • UniProtKB - P06761

Application Details

Tested Applications:	IF, WB
Application Note:	Anti-GRP78 Antibody is tested in WB and IF and suitable for use in IHC and IP Expect a band approximately ~78kda corresponding to the molecular weight of Grp78 protein. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IF:	1:100
WB:	1:1000

Formulation

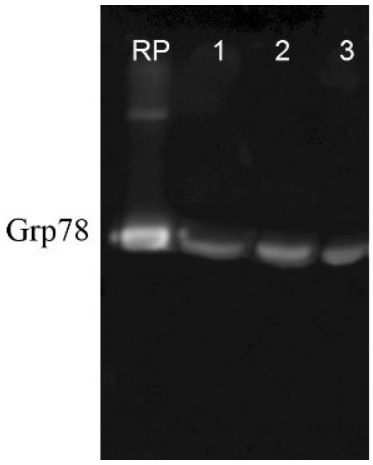
Physical State:	Liquid (sterile filtered)
Concentration:	85 mg/mL by Refractometry
Buffer:	1X PBS, pH 7.4
Preservative:	0.09% (w/v) Sodium Azide
Stabilizer:	50% (v/v) Glycerol

Shipping & Handling

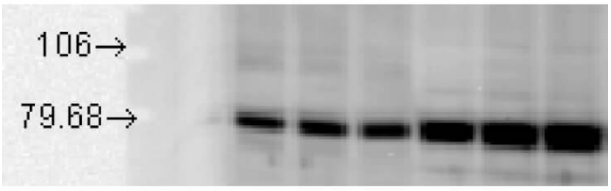
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western Blot of rabbit anti-Grp78 antibody. Lane 1: GRP78 recombinant protein. Lane 2: Human tissues. Lane 3: Dog tissues. Lane 4: Mouse tissues. Load: 10 µg per lane. Primary antibody: Grp78 antibody at 1:1000 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 72.4 kDa, ~75 kDa for Grp78. Other band(s): none.



Western Blot
Western Blot of rabbit anti-Grp78 antibody. Lane 1-6: Rat tissues. Load: 10 µg per lane. Primary antibody: Grp78 antibody at 1:1000 for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 72.4 kDa, ~80 kDa for Grp78. Other band(s): none.

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