

DATASHEET

GRP78 Mouse Monoclonal Antibody(C3451)

CAT. NO. AMA03063

KEY FEATURES

Target	GRP78	Source / Host	Mouse
Reactivity	Human, Mouse, Rat	Clonality	Monoclonal
Applications	WB, IF/ICC, IP	Conjugation	Unconjugated
Form / Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.	Storage	at-20°C

BACKGROUND

Endoplasmic reticulum chaperone that plays a key role in protein folding and quality control in the endoplasmic reticulum lumen . Involved in the correct folding of proteins and degradation of misfolded proteins via its interaction with DNAJC10/ERdj5, probably to facilitate the release of DNAJC10/ERdj5 from its substrate . Acts as a key repressor of the EIF2AK3/PERK and ERN1/IRE1-mediated unfolded protein response (UPR) . In the unstressed endoplasmic reticulum, recruited by DNAJB9/ERdj4 to the luminal region of ERN1/IRE1, leading to disrupt the dimerization of ERN1/IRE1, thereby inactivating ERN1/IRE1 . Also binds and inactivates EIF2AK3/PERK in unstressed cells .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IF/ICC	1:50 - 1:100
IP	1:10 - 1:50

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Mouse monoclonal antibody to GRP78
Specificity	Recognizes endogenous levels of GRP78 protein.
Antibody Type	Primary antibody
Immunogen	Purified recombinant human BiP/GRP78 protein expressed in E.coli.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 72 kD; Observed: 78 kD
Form/Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Alternative Names	GRP78; 78 kDa glucose-regulated protein; GRP-78; Endoplasmic reticulum luminal Ca(2+)-binding protein grp78; Heat shock 70 kDa protein 5; Immunoglobulin heavy chain-binding protein; BiP
Gene Symbol	HSPA5
Entrez Gene	3309(Human); 14828(Mouse); 25617(Rat)
SwissProt	P11021(Human); P20029(Mouse); P06761(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

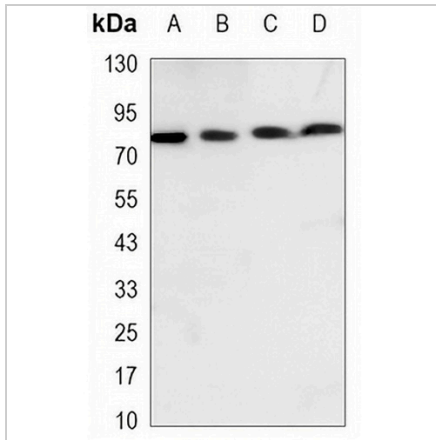
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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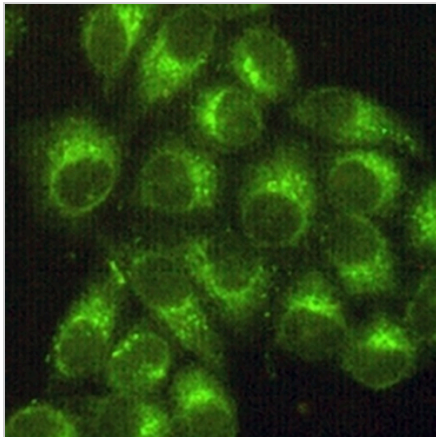
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Western blot analysis of GRP78 expression in NIH3T3 (A), A549 (B), C6 (C), HeLa (D) whole cell lysates. (Predicted band size: 72 kD; Observed band size: 78 kD)



Immunofluorescent analysis of GRP78 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.