

DESCRIPTION

Species Reactivity	Human
Specificity	Detects endogenous human GRP78 at 78 kDa in Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 474421
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human GRP78 Met1-Leu654 Accession # P11021
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

GRP78 (Glucose-regulated protein 78 kDa; also BiP and HSPA5) is a 72 kDa member of the heat shock protein 70 family of proteins. Intracellularly, GRP78 is an endoplasmic reticulum chaperone that participates in protein folding; extracellularly, it induces IL-10 production from T cells and interacts with Cripto to block TGF-β signaling. Human GRP78 precursor is 654 amino acids (aa) in length. It contains an 18 aa signal sequence and a 636 aa mature region that shows a hydantoinase A region (aa 145-245) and a C-terminal KDEL motif that is present on intracellular GRP78, but absent on secreted GRP78. There is alternative splicing in the signal sequence (aa 1-10), and multiple single aa substitution. Over aa 1-654, human GRP78 is more than 97% aa identical to mouse and rat GRP78.

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