

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse/Rat                                                                        |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human, mouse, and rat GRP75.                                                   |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                    |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                              |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human GRP75<br>Glu542-Gln679<br>Accession # P38646 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm    |
| <b>Formulation</b>                                                                                                                                                                                      | 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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b>  | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

The 70 kDa heat shock proteins (HSP70s) are a highly conserved family of stress response proteins. The HSP70 family of proteins contains both heat/stress inducible and constitutively expressed members known as heat shock cognate proteins. Glucose Regulated 75 kDa Protein (GRP75, also known as HSPA9B, mitochondrial HSP70, and mortalin-2) is a 679 amino acid (aa) heat shock cognate protein. Many HSPs function as molecular chaperones, facilitating the folding of other cellular proteins. GRP75 is a mitochondrial protein involved in protein translocation into the mitochondria. Proteins crossing the mitochondrial membrane require unfolding before entering translocation pores in the mitochondrial outer membrane. GRP75 together with other inner membrane proteins of the mitochondria mediate this process. GRP75 also plays a role in the control of cell cycle progression.

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