



# Monoclonal Anti-human GRP75/HSPA9B Antibody

## ORDERING INFORMATION

**Catalog Number:** MAB35841

**Clone:** 419605

**Lot Number:** CAAI02

**Size:** 100 µg (sufficient for 400 mL of blotting solution)

**Storage:** -20° C

**Specificity:** human, mouse, and rat GRP75

**Immunogen:** *E. coli*-derived recombinant human GRP75 (aa 542 - 679)

**Ig Type:** mouse IgG<sub>1</sub>

**Recommended Application:**  
Immunohistochemistry

## 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.

## Preparation

This antibody was produced from a hybridoma elicited from a mouse immunized with purified, *E. coli*-derived recombinant human GRP75 (rhGRP75; aa 542 - 679; Accession # NP\_004125). The IgG fraction of the hybridoma culture supernatant was purified by protein G chromatography.

## Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

## Reconstitution

Reconstitute in 100 µL of PBS containing 0.02% NaN<sub>3</sub>.

## Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

## Specificity

The antibody detects rhGRP75 in direct ELISAs.

## Application

**Immunohistochemistry** - This antibody was used at a concentration of 15 µg/mL with appropriate secondary reagents to detect GRP75 in paraffin-embedded human fibroblastic meningioma tissue sections. For chromogenic detection of labeling, the use of R&D Systems Cell and Tissue Staining Kits (CTS Series) is recommended.

**Optimal dilutions should be determined by each laboratory for each application.**

**For immunohistochemistry images, please refer to our website at <http://www.RnDSystems.com/go/ihc>.**