



PRODUCT DATA SHEET

Product: Anti-Mitochondrial Protein P110, clone 2G2

Cat. No.: MC-290 (100 µg)

Background:

P110 is a human mitochondrial protein with a molecular weight of 110 kDa. Close examination of the staining pattern in HeLa and Fanconi's Anemia cells reveal differences in the morphology and organization of mitochondria in these two cell types. The epitope targeted may serve as a valuable marker in the investigation of relationships between mitochondria and other cellular structures in human cells. The mouse monoclonal P110 antibody labels mitochondria in human cells, as assessed by double staining with either Rhodamine 123 or a polyclonal antibody to mitochondrial matrix HSP-60 proteins. The P110 antigen has an approximate isoelectric point of 6.5 that co-partitions with HSP-60 proteins during isolation of mitochondria from HeLa cells. The P110 staining pattern in HeLa and Fanconi's anemia cells reveals differences in the morphology and organization of mitochondria in these two cell types. In HeLa cells, mitochondria appear as individual tubular compartments of variable length and are closely associated with vimentin filaments, particularly at the periphery of the nucleus. In Fanconi's anemia cells, mitochondria have a filamentous shape and form an interconnected cytoplasmic reticulum running in parallel with both vimentin filaments and microtubules. After stabilization with aldehyde- or alcohol-based fixation protocols that optimize the preservation of cytoskeletal components, the epitope targeted by the 2G2 antibody may serve as a valuable marker in the investigation of relationships between mitochondria and other cellular structures in human cells.

Specificity:

Reacts with a mitochondrial membrane protein present in humans and monkeys.

Species Reactivity:

Human and monkey. Does not cross-react with mouse, rat, or chicken.

Ig Isotype:

Mouse IgG₁

Immunogen:

Skeletal fraction of HeLa-S3 cells.

Format:

100 µg purified IgG at 1 mg/mL in PBS with 0.08% sodium azide as a preservative. Purified from ascites fluid and sterilized by 0.2 µM filtration.

Storage:

Store at -20°C. Aliquot to avoid repeated freeze/thaws.

Applications and Suggested Dilutions:

- Immunofluorescence
- Western blot: Use at 2-10 µg/mL.

The optimal dilution for a specific application should be determined by the researcher.

Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.