

Product Name: Miro1

Alternate Names: ARHT1, Mitochondrial Rho GTPase 1, RHOT1

Product Code: TAP-140

FOR RESEARCH USE ONLY (RUO)

Verified Applications / Usage

Validated as a substrate in *in vitro* Parkin-mediated ubiquitylation assays, demonstrating ATP-, PINK1-, and Parkin-dependent ubiquitylation suitable for studies of mitophagy, E3 ligase activity, and targeted protein degradation mechanisms.

Physical Characteristics

Species: Human

Predicted MW (kDa): 48 kDa

Source: *E. coli* BL21

Purity: 90 %

Tag: N-AVI (Biotinylated)

Formulation: 40 mM HEPES, 200 mM NaCl, 10% Glycerol, 2 mM TCEP, 1 mM EDTA, pH 7.6

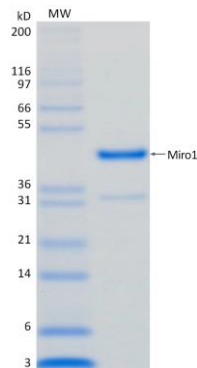
Shipping: The product is shipped with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Stability/Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Aliquot and store $\leq -70^{\circ}\text{C}$ (stable for 24 months from date of receipt).

Quality Assurance

Purity & SDS-PAGE

Protein ID: Mitochondrial Rho GTPase 1



2 µg Miro1 run on 4-12% SDS-PAGE gel under reducing conditions, then visualized with Colloidal Coomassie Blue Stain.

Activity Assay

Verified in Ubiquitylation Assay.

Background

Description

Miro1 (RHOT1) is a mitochondrial outer membrane GTPase that regulates mitochondrial transport, calcium-dependent signaling, and mitochondrial quality control through the PINK1/Parkin-mediated mitophagy pathway. This recombinant protein is suitable for biochemical assays, ubiquitylation studies, protein interaction analyses, and targeted protein degradation research.

Accession Number: Q8IXI2

Entrez Gene ID: Miro1

Protein Sequence

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SFGLNDIFEAQKIEWHEGSMKPACIKALTRIFKISDQDNDGTLNDAELNFFQRICFNTPLAPQ
ALEDVKNVVRKHISDGVADSGTLTKGFLFLHTLFIQRGRHETTWTVLRRFGYDDDLDTPEYL
FPLLKIPPDCTTELNHAYLFLQSTFDKHDLDRCALSPDELKDLFKVFPYIPWGPDVNNTVC
TNERGWITYQGFLSQWTLTTYLDVQRCLEYLGYLGYLSILTEQESQASAVTVTRDKKIDLQKKQ
TQRNVFRCNVIGVKNCCKSGVLQALLGRNLMRQKKIREDHKSYYAINTVYVYGQEKYLLLDHI
SESEFLTEAEIICDVVCLVDVSNPKSFEYCARIFKQHFMDSRIPCLIVAAKSDLHEVKQEYS
ISPTDFCRKHKMPPPPQAFTCNTADAPSKDIFVKLTMMAMY
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