

MATERIAL DATA SHEET

Recombinant Human His6 Miro1/Rhot1

Cat. # SP-490

Mitochondrial Rho GTPase 1 (also known as Miro1 or Rhot1) is a membrane associated GTPase with a predicted molecular weight of 71 kDa. Miro1 has been reported to directly associate with the KIF5 motor protein, allowing mitochondria to move along microtubules. A number of publications have identified Miro1 as an *in vivo* substrate for the E3 Ubiquitin ligase Parkin (encoded by the PARK2 gene), an essential component of the cellular machinery that participates in the removal of damaged mitochondria. This protein is useful as an *in vitro* substrate for activated recombinant Parkin enzyme.

Product Information

Quantity:	100 µg
MW:	50 kDa
Source:	<i>E. coli</i> -derived Contains an N-terminal 6-His tag, Ile186 - Thr591 Accession # Q8IXI2
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 8.0, 200 mM NaCl, 10% (v/v) Glycerol, 2 mM TCEP
Purity:	>90%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

Use & Storage

Use:	Reaction Conditions will be optimized for each specific application. In a 50 µl reaction containing 1 µM activated Parkin E3 ligase (E3-160 or E3-162), 1 µM His6-Miro1 is fully converted to Ubiquitinated forms in 60 minutes.
Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">• 12 months from date of receipt, -70 °C as supplied.• 3 months, -70 °C under sterile conditions after opening.

Literature

References:

1. Birsa, N. *et al.* (2014) J. Biol. Chem. **289**: 14569
2. Kazlauskaitė, A. *et al.* (2014) Open Biol. **4**: 130213
3. Klosowiak, J.L. *et al.* (2016) Sci. Rep. **6**: 33019
4. MacAskill, A.F. *et al.* (2009) Neuron **61**: 541
5. Ordureau, A. *et al.* (2015) Proc. Natl. Acad. Sci. **112**: 637

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