

# Recombinant Rat Tripartite Motif-containing 63, GST-tagged

**Cat. No.** Trim63-2164R    **Lot. No.** (See product label)

## SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Product Overview</b>    | Recombinant Rat Tripartite Motif-containing 63 produced in <i>E. coli</i> BL21 (λDE3) was fused to GST-tag. MW = 67kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>             | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>         | Trim63 encodes a member of the RING zinc finger protein family found in striated muscle and iris. The product of this gene is localized to the Z-line and M-line lattices of myofibrils, where titin's N-terminal and C-terminal regions respectively bind to the sarcomere. In vitro binding studies have shown that this protein also binds directly to titin near the region of titin containing kinase activity. Another member of this protein family binds to microtubules. Since these family members can form heterodimers, this suggests that these proteins may serve as a link between titin kinase and microtubule-dependent signal pathways in muscle. |
| <b>Purity</b>              | ≥95% (SDS-PAGE). Purified by affinity chromatography.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Formulation</b>         | Liquid. In 50mM TRIS, pH 7.5, containing 150mM NaCl and 1mM DTT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Concentration</b>       | 150g/ml.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Biological Activity</b> | Recombinant GST-MuRF1 is competent for both auto-ubiquitylation and ubiquitylation of substrate proteins in vitro.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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**Application** 1) Muscle atrophy studies - role of ubiquitinylation. 2) In vitro generation of ubiquitinated muscle atrophy pathway components. 3) Investigation of MuRF1's role in muscle wasting process. 4) Control ubiquitin E3 ligase for auto-ubiquitinylation reactions

**Stability** Stable for at least 12 months after receipt when stored at -80°C.

## GENE INFORMATION

**Gene Name** Trim63 tripartite motif-containing 63 [ *Rattus norvegicus* ]

**Synonyms** Trim63; tripartite motif-containing 63; Murf; Murf1; Rnf28; E3 ubiquitin-protein ligase TRIM63; MURF-1; ring finger protein 28; tripartite motif protein 63; muscle ring finger protein 1; muscle-specific RING finger protein 1; tripartite motif-containing protein 63

**Gene ID** 140939

**mRNA Refseq** NM\_080903

**Protein Refseq** NP\_543179

**UniProt ID** Q91Z63

**Chromosome Location** 5q36

**Function** ligase activity; metal ion binding; protein binding; protein binding; titin binding; ubiquitin-protein ligase activity; ubiquitin-protein ligase activity ISO zinc ion binding

**PDB rendering based on 2d8u.**

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