

MATERIAL DATA SHEET

Recombinant Human GST- MuRF1/TRIM63

Cat. # E3-308

Muscle-specific RING-finger Protein 1 (MuRF1, also known as TRIM63) is an E3 Ubiquitin ligase and member of a family of tripartite motif (TRIM) proteins containing more than 60 members in metazoans. Human TRIM63 is 353 amino acids in length with a predicted molecular weight of 40 kDa and is 88% identical to the mouse and rat orthologs. TRIM63 contains two zinc finger domains (one RING type and one B-Box type), a coiled-coil region, and a C-terminal COS domain. It is expressed primarily in striated muscle, and evidence suggests it may target sarcomeric proteins for ubiquitination and subsequent proteasome-dependent degradation. Target proteins for TRIM63 may include Actin, Myosin-binding Protein C, and Myosin Light Chains 1 and 2. TRIM63 has been implicated in muscular atrophy associated with chronic disease and inactivity. This recombinant protein contains an N-terminal GST tag.

Product Information

Quantity:	50 µg
MW:	67 kDa
Source:	<i>E. coli</i> -derived human MuRF1/TRIM63 protein Accession # Q969Q1
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 7.5, 200 mM NaCl, 10% (v/v) Glycerol, 1 mM DTT
Purity:	>70%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

Use & Storage

Use: Recombinant Human GST-MuRF1/TRIM63 is an E3 Ubiquitin Ligase that functions downstream of a Ubiquitin-activating (E1) enzyme and a Ubiquitin-conjugating (E2) enzyme to conjugate Ubiquitin to substrate proteins. Reaction conditions will need to be optimized for each specific application. We recommend an initial TRIM63 concentration of 50-500 nM.

Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 60 months from date of receipt, -70 °C as supplied.
- 3 months, -70 °C under sterile conditions after opening.

Literature

References:

1. Ozata, K. et al. (2008) Nat. Rev. Immunol. **8**: 849
2. Nakada, S. et al. (2010) Nature **446**: 941
3. Sato, Y. et al. (2012) J. Biol. Chem. **287**: 25860
4. Wang, T. et al. (2009) J. Mol. Biol. **386**: 1011
5. Wiener, R. et al. (2012) Nature **483**: 618

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