



Human MG53/TRIM72

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

# Human MG53/TRIM72

Human, recombinant protein expressed in *E. coli*.

Cat# CY-R2073

Amount: 100 µg (0.5 µg/µl)

Lot:

### Introduction:

MG53/TRIM72, a muscle-specific TRIM (Tri-partite motif) family protein, contributes to intracellular vesicle trafficking and is an essential component of the membrane repair machinery in striated muscle. It was shown that MG53 mediates the degradation of the insulin receptor and insulin receptor substrate 1 via its E3 ubiquitin ligase activity, and when upregulated in mice, causes metabolic syndrome featuring insulin resistance and obesity.

### Product Description:

Full length human MG53/TRIM72, containing *N*-terminal GST tag, expressed in *E. coli*. and purified by GSH-agarose chromatography.

### Gene Information:

The gene accession number is NM\_001008274. The OMIM number is 613288.

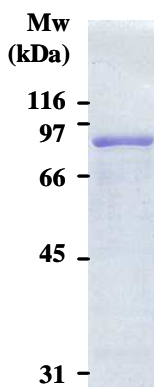
### Gene Aliases:

Mitsigumin 53

### Formulation:

Recombinant MG53/TRIM72 is supplied frozen in 2x concentration phosphate buffered saline (PBS) containing 10 % glycerol.

### Molecular Weight: 42kDa



Recombinant MG53/TRIM72 demonstrates approximately 80 kDa band and greater than 95 % pure as determined by SDS-PAGE analysis.



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**Storage:**

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, AVOID REPEATED HANDLING AND MULTIPLE FREEZE/THAW CYCLES.

**Stability:**

Unopened vial at -70 °C, for 1 year after delivery.

**References:**

1. Cai, C. et al. MG53 nucleates assembly of cell membrane repair machinery. *Nature Cell Biol.* **11**: 56-64, 2009.
2. Song R. et al. Central role of E3 ubiquitin ligase MG53 in insulin resistance and metabolic disorders. *Nature* **494**: :375-379, 2013
3. Weisleder N. et al. Recombinant MG53 protein modulates therapeutic cell membrane repair in treatment of muscular dystrophy. *Sci Transl Med.* **4**: 139 ra85, 2012
4. Zhu, H. et al. Polymerase transcriptase release factor (PTRF) anchors MG53 protein to cell injury site for initiation of membrane repair. *J. Biol. Chem.* **286**: 12820-12824, 2011

**Related Products:**

- \* CycLex Poly-Ubiquitinated Protein Enrichment & Detection Kit: Cat# CY-7001
- \* CycLex Proteasome Enrichment & Activity Assay Kit: Cat# CY-7002

- \* hHR23B-UbL domain: Cat# CY-R2068
- \* hHR23B-UBA1 domain: Cat# CY-R2069
- \* S5a-UIM2/PubS2: Cat# CY-R2070
- \* S5a-UIM1+2/PubS1+2: Cat# CY-R2071
- \* Rpn13-Pru domain: Cat# CY-R2072

**PRODUCED BY**

CycLex Co., Ltd.  
1063-103 Terasawaoka  
Ina, Nagano 396-0002  
Japan  
Fax: +81-265-76-7618  
e-mail: [info@cyclex.co.jp](mailto:info@cyclex.co.jp)  
URL: <http://www.cyclex.co.jp>

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