MuRF3 (Muscle-specific RING finger protein 3)

Cat. # UB306

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Background

MuRF3 is a RING domain E3 ligase that is involved in the conjugation of ubiquitin to target substrates. MuRF3 has been demonstrated to function with the E2 enzyme UBE2D3 (UbcH5c) in vitro. MuRF3 is also known as TRIM54 (tripartite motif-containing 54) containing a RING-finger/Bbox/coiled-coil tripartite fold. MuRF3 has been implicated along with MuRF1 as a regulator of protein degradation in striated muscle. MuRF3 also plays an important role in maintaining cardiac function after myocardial infarction.

Alternate Names

Tripartite Motif Containing Protein 54 (TRIM54), Muscle-Specific RING Finger Protein 3, RING Finger Protein 30 (RNF30)

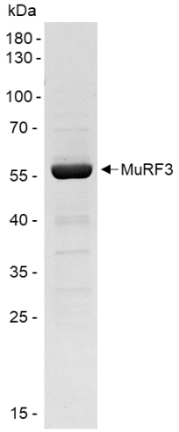
Application(s)

In vitro conjugation assay

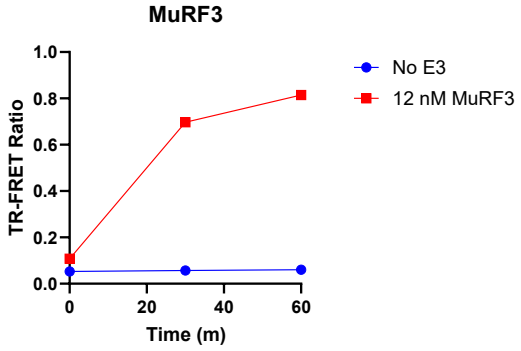
Product Specifications

Affinity tag	His6-SUMO
Purity	> 90% by SDS-PAGE
Molecular Weight	52.4 kDa (with tag), 40.3 kDa (without tag)
Quantity	25 µg
Species	Human
Source	E. coli
Physical State	Liquid
Buffer	50 mM Tris, 150 mM NaCl, 5 mM DTT, 10% glycerol
Activity	A typical enzyme concentration of 10-100 nM is used for in vitro conjugation, depending on experimental conditions.
Storage	Store at -80°C. Avoid repeated freeze/thaw cycles

Product QC



SDS-Page Analysis of purified MuRF3. Two µg of the protein was loaded on a 10-20% SDS-PAGE gel and stained with Coomassie brilliant blue.



Activity Assay of MuRF3. 12 nM MuRF3 was tested in a TR-FRET assay showing robust E3 ligase activity.

References

1. Cao, H., et al., Asia Pac J Clin Oncol., 2022. 18(6):669-677.
2. Zhu, J., et al., Front Oncol., 2021. 11:759842.