10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-MuRF1 (C-terminal region) Antibody

Catalog # AN1842

Product Information

Application	WB, ICC
Primary Accession	Q969Q1
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	40248

Additional Information

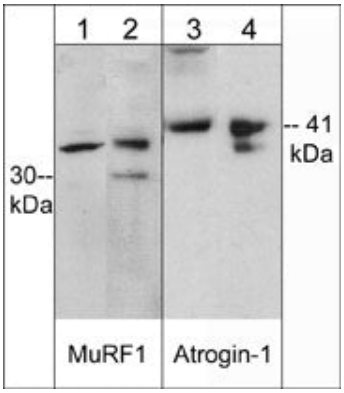
Gene ID	84676
Other Names	Tripartite motif 63, TRIM63, SMRZ, IRF, RNF28, Muscle RING finger, MURF-1
Target/Specificity	Muscle proteolysis is regulated by the ATP-dependent ubiquitin–proteasome system. This system involves ubiquitination of specific proteins, leading to recognition and degradation by the 26S proteasome complex. Ubiquitination requires interactions with ubiquitin related proteins, ubiquitin-activating (E1), ubiquitin-conjugating (E2) and ubiquitin-ligating enzymes (E3) known as ligases. Two muscle specific ubiquitin ligases have been identified, muscle ring finger 1 (MuRF-1) and Atrogin 1. Both ligases are regulated by the Akt1/FOXO1 signaling pathway, and both proteins have been shown to be upregulated prior to the onset of atrophy in multiple models of muscle wasting, including disuse and cachexia. MuRF1 is also known as TRIM63, SMRZ, and RNF28, and its expression is upregulated after TNFα treatment in C2C12 cells and muscle tissue, while localization of MuRF1 protein has been observed in the cytoplasm and nucleus of cells.
Dilution	WB~~1:1000 ICC~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-MuRF1 (C-terminal region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

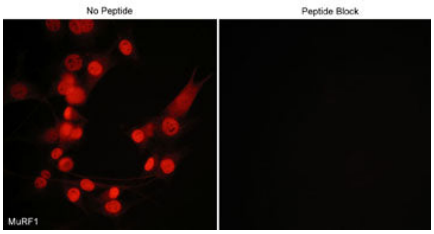
Muscle proteolysis is regulated by the ATP-dependent ubiquitin–proteasome system. This system involves ubiquitination of specific proteins, leading to recognition and degradation by the 26S proteasome complex. Ubiquitination requires interactions with ubiquitin related proteins, ubiquitin-activating (E1), ubiquitin-conjugating (E2) and ubiquitin-ligating enzymes (E3) known as ligases. Two muscle specific ubiquitin ligases have been identified, muscle ring finger 1 (MuRF-1) and Atrogin 1. Both ligases are

regulated by the Akt1/FOXO1 signaling pathway, and both proteins have been shown to be upregulated prior to the onset of atrophy in multiple models of muscle wasting, including disuse and cachexia. MuRF1 is also known as TRIM63, SMRZ, and RNF28, and its expression is upregulated after TNFα treatment in C2C12 cells and muscle tissue, while localization of MuRF1 protein has been observed in the cytoplasm and nucleus of cells.

Images



Western blot analysis of mouse heart tissue (lanes 1 & 3) or C2C12 cells (lanes 2 & 4). The blot was probed with anti-MuRF1 (C-terminal region) (lanes 1 & 2) or anti-Atrogin-1 (lanes 3 & 4).



Immunocytochemical labeling of MuRF1 in mouse C2C12 cells. The cells were labeled with rabbit polyclonal MuRF1 antibody, then detected using appropriate secondary antibody conjugated to Cy3. The antibody was used in the absence (left) or presence (right) of blocking peptide (MX3405).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.