

Atrogin-1

Blocking Peptide

Cat. # AX2045 Size 50 µg

Background

Atrogin-1/Muscle Atrophy F-box (MAFbx) is an E3 ubiquitin ligase that mediates proteolysis events that occur during muscle atrophy. This ATP-dependent ubiquitin-mediated proteolysis occurs in response to a variety of catabolic states in muscle. Atrogin is expressed in heart and skeletal muscle, and is upregulated during muscle atrophy. In addition, Atrogin expression increases in C2C12 myotubes after stimulation with cytokines. Atrogin is thought to recognize and bind to some phosphorylated proteins and promote their ubiquitination and degradation during skeletal muscle atrophy. Atrogin interacts with MyoD by ubiquitination via a sequence found in transcriptional coactivators and therefore may play an important role in the course of muscle differentiation by determining the abundance of MyoD. Mice deficient in Atrogin are resistant to muscle atrophy.

Background References

Bodine, S.C. et al. (2001) Science 294: 1704-8. Dai, K.S. & Liews, C.C. (2001) J Biol. Chem. 276(26):23992. Leger, B. et al. (2006) J Physiol. 576(3):923.

Applications

Blocking 1:1000 ELISA 50 ng/well Specificity

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

The peptide is specifically recognized by Atrogin-1 antibody (AP2041) in ELISA, and has been shown to block the reactivity of AP2041 during Western blot.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Peptide Sequence

A synthetic peptide corresponding to amino acids 23 to 35 in mouse Atrogin-1. This sequence is highly homologous to human and rat Atrogin (F-box only protein 32).

Buffer and Storage

Blocking Peptide is supplied in 50μ l phosphate-buffered saline and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Related Products

AP2041 Atrogin-1 Rabbit Polyclonal
MK6900 Mouse Tissue Lysate Kit
MP3401 MuRF1 (C-terminal region) Rabbit Polyclonal
MX3405 MuRF1 (C-terminal region) Blocking Peptide
MK6170 Muscle Atrophy Ubiquitin Ligase Antibody Sampler Kit

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