

# MAFbx (H-300): sc-33782

## BACKGROUND

Muscle atrophy F-box (MAFbx) is an E3 ubiquitin ligase that initiates ATP-dependent ubiquitin-mediated proteolysis and promotes muscle atrophy. MAFbx transcript is abundant in cardiac and skeletal muscle undergoing atrophy. MAFbx<sup>-/-</sup> mice are resistant to muscle atrophy. MAFbx is thought to recognize and bind to some phosphorylated proteins and promote their ubiquitination and degradation during skeletal muscle atrophy. MAFbx interacts with MyoD by ubiquitination via a sequence found in transcriptional co-activators and therefore may play an important role in the course of muscle differentiation by determining the abundance of MyoD. MAFbx is specifically expressed in cardiac and skeletal muscle.

## CHROMOSOMAL LOCATION

Genetic locus: FBXO32 (human) mapping to 8q24.13, FBXO25 (human) mapping to 8p23.3; Fbxo32 (mouse) mapping to 15 D2, Fbxo25 (mouse) mapping to 8 A1.1.

## SOURCE

MAFbx (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of MAFbx of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

MAFbx (H-300) is recommended for detection of MAFbx isoforms 1-3 and F-box only protein 25 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MAFbx (H-300) is also recommended for detection of MAFbx isoforms 1-3 and F-box only protein 25 isoforms 1 and 2 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of MAFbx: 42 kDa.

Positive Controls: MAFbx (m): 293T Lysate: sc-121485.

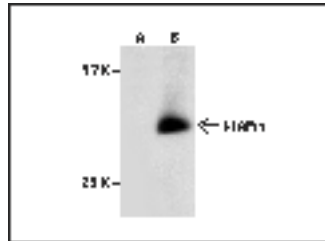
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



MAFbx (H-300): sc-33782. Western Blotting of MAFbx in mouse skeletal muscle (293T lysate and mouse skeletal muscle): sc-121485 (5) 293T Lysate cell lysate.

## SELECT PRODUCT CITATIONS

- Glynn, E.L., et al. 2010. Muscle protein breakdown has a minor role in the protein anabolic response to essential amino acid and carbohydrate intake following resistance exercise. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 299: 533-540.
- Karagounis, L.G., et al. 2010. Contraction-induced changes in TNF $\alpha$  and Akt-mediated signalling are associated with increased myofibrillar protein in rat skeletal muscle. *Eur. J. Appl. Physiol.* 109: 839-848.
- Siu, P.M., et al. 2011. Proteasome inhibition alleviates prolonged moderate compression-induced muscle pathology. *BMC Musculoskelet. Disord.* 12: 58.
- Gonçalves, D.A., et al. 2012. Clenbuterol suppresses proteasomal and lysosomal proteolysis and atrophy-related genes in denervated rat soleus muscles independently of Akt. *Am. J. Physiol. Endocrinol. Metab.* 302: E123-E133.
- Mitchell, A.S., et al. 2015. Functional, morphological, and apoptotic alterations in skeletal muscle of ARC deficient mice. *Apoptosis*. E-published.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **MAFbx (F-9): sc-166806**, our highly recommended monoclonal alternative to MAFbx (H-300).