

MAST205 (H-300): sc-134933

BACKGROUND

Syntrophin is an adapter protein that functions to bind certain signaling molecules to the dystrophin-associated protein complex. This complex connects the extracellular matrix to the intracellular cytoskeleton for construction and maintenance of the postsynaptic structures in the neuromuscular junction and the central nervous system. Microtubule-associated serine/threonine-protein kinase 2 (MAST205) is a testis-specific, cytoplasmic protein that functions in a multi-protein complex in the maturation of spermatids. MAST205 is involved in linking the dystrophin/utrophin network with microtubule filaments via Syntrophin. By forming a complex with TRAF6, MAST205 regulates lipopolysaccharide-induced IL-12 synthesis in macrophages. This leads to the inhibition of TRAF6 NF κ B activation. Two isoforms exist for MAST205 due to alternative splicing. Isoform 1 represents the full length protein, while isoform 2 lacks the residues 327-396 and 1091-1113. The N-terminus of MAST205 must be phosphorylated in order for ubiquitination to occur at the same site. This ubiquitination leads to the degradation of MAST205 via proteasome-mediated proteolysis.

REFERENCES

1. Walden, P.D. and Cowan, N.J. 1994. A novel 205 kDa testis-specific serine/threonine protein kinase associated with microtubules of the spermatid manchette. *Mol. Cell. Biol.* 13: 7625-7635.
2. Walden, P.D. and Millette, C.F. 1997. Increased activity associated with the MAST205 protein kinase complex during mammalian spermiogenesis. *Biol. Reprod.* 55: 1039-1044.
3. Lumeng, C., et al. 1999. Interactions between β 2-syntrophin and a family of microtubule-associated serine/threonine kinases. *Nat. Neurosci.* 2: 611-617.
4. Xiong, H., et al. 2004. Interaction of TRAF6 with MAST205 regulates NF κ B activation and MAST205 stability. *J. Biol. Chem.* 279: 43675-43683.
5. Zhou, H., et al. 2004. Microtubule-associated serine/threonine kinase 205 kDa and Fc γ receptor control IL-12 p40 synthesis and NF κ B activation. *J. Immunol.* 172: 2559-2568.

CHROMOSOMAL LOCATION

Genetic locus: MAST2 (human) mapping to 1p34.1.

SOURCE

MAST205 (H-300) is a rabbit polyclonal antibody raised against amino acids 1499-1798 mapping at the C-terminus of MAST205 of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

MAST205 (H-300) is recommended for detection of MAST205 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for MAST205 siRNA (h): sc-62602, MAST205 shRNA Plasmid (h): sc-62602-SH and MAST205 shRNA (h) Lentiviral Particles: sc-62602-V.

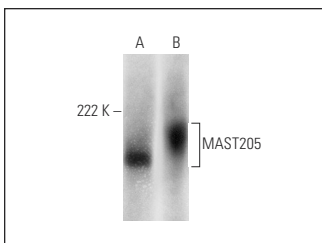
Molecular Weight of MAST205: 205 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

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.

DATA



MAST205 (H-300): sc-134933. Western blot analysis of MAST205 expression in K-562 (A) and HeLa (B) whole cell lysates.

RESEARCH USE

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



Try **MAST205 (C-1): sc-514198**, our highly recommended monoclonal alternative to MAST205 (H-300).