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Goat Anti-MTM1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1692a

Specification

Goat Anti-MTM1 Antibody - Product Information

Application	**WB, E**
Primary Accession	Q13496
Other Accession	NP_000243, 4534
Reactivity	**Human**
Predicted	**Mouse, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**69932**

Goat Anti-MTM1 Antibody - Additional Information

Gene ID 4534

Other Names
Myotubularin, Phosphatidylinositol-3, 5-bisphosphate 3-phosphatase, 3.1.3.95, Phosphatidylinositol-3-phosphate phosphatase, 3.1.3.64, MTM1, CG2

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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
Goat Anti-MTM1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-MTM1 Antibody - Protein Information

Name MTM1 (HGNC:7448)

Synonyms CG2

Function
Lipid phosphatase which dephosphorylates phosphatidylinositol 3-monophosphate (PI3P) and phosphatidylinositol 3,5-bisphosphate (PI(3,5)P2) (PubMed:10900271, PubMed:11001925, PubMed:12646134, PubMed:14722070). Has also been shown to dephosphorylate phosphotyrosine- and phosphoserine-containing peptides (PubMed:9537414). Negatively regulates EGFR degradation through regulation of EGFR trafficking from the late endosome to the lysosome (PubMed:14722070). Plays a role in vacuolar formation and morphology. Regulates desmin intermediate filament assembly and architecture (PubMed:21135508). Plays a role in mitochondrial morphology and positioning (PubMed:21135508). Required for skeletal muscle maintenance but not for myogenesis (PubMed:21135508). In skeletal muscles, stabilizes MTMR12 protein levels (PubMed:23818870).

Cellular Location
Cytoplasm. Cell membrane; Peripheral membrane protein. Cell projection, filopodium. Cell projection, ruffle. Late endosome. Cytoplasm, myofibril, sarcomere {ECO:0000250|UniProtKB:Q9Z2C5}. Note=Localizes as a dense cytoplasmic network (PubMed:11001925). Also localizes to the plasma membrane, including plasma membrane extensions such as filopodia and ruffles (PubMed:12118066). Predominantly located in the cytoplasm following interaction with MTMR12 (PubMed:12847286). Recruited to the late endosome following EGF stimulation (PubMed:14722070). In skeletal muscles, co-localizes with MTMR12 in the sarcomere (By similarity) {ECO:0000250|UniProtKB:Q9Z2C5, ECO:0000269|PubMed:11001925, ECO:0000269|PubMed:12118066, ECO:0000269|PubMed:12847286, ECO:0000269|PubMed:14722070}

Goat Anti-MTM1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-MTM1 Antibody - Images

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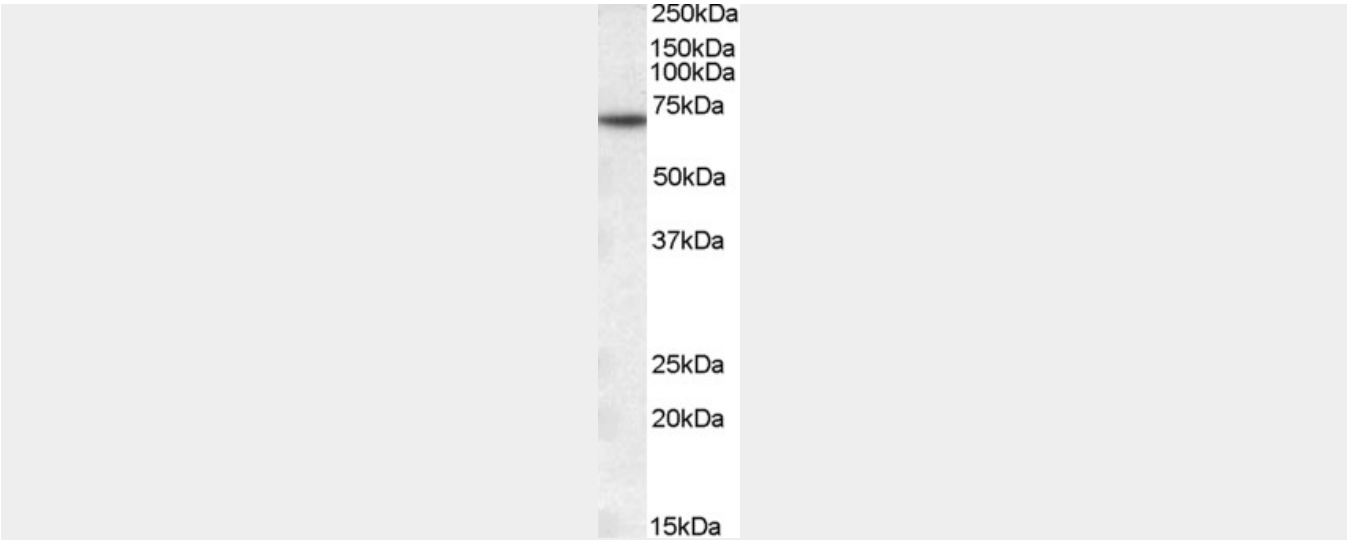

AF1692a (0.3 µg/ml) staining of HepG2 lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-MTM1 Antibody - Background

This gene encodes a dual-specificity phosphatase that acts on both phosphotyrosine and phosphoserine. It is required for muscle cell differentiation and mutations in this gene have been identified as being responsible for X-linked myotubular myopathy.

Goat Anti-MTM1 Antibody - References

Mutational analysis of mononucleotide repeats in dual specificity tyrosine phosphatase genes in gastric and colon carcinomas with microsatellite instability. Song SY, et al. APMIS, 2010 May. PMID 20477815.
Novel molecular diagnostic approaches for X-linked centronuclear (myotubular) myopathy reveal intronic mutations. Tosch V, et al. Neuromuscul Disord, 2010 Jun. PMID 20434914.
Mutation studies in X-linked myotubular myopathy in three Indian families. Bijarnia S, et al. Indian J Pediatr, 2010 Apr. PMID 20358311.
From dynamic live cell imaging to 3D ultrastructure: novel integrated methods for high pressure freezing and correlative light-electron microscopy. Spiegelhalter C, et al. PLoS One, 2010 Feb 3. PMID 20140253.
T-tubule disorganization and defective excitation-contraction coupling in muscle fibers lacking myotubularin lipid phosphatase. Al-Qusairi L, et al. Proc Natl Acad Sci U S A, 2009 Nov 3. PMID 19846786.