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MYH3 Antibody

Catalog # ASC11890

Product Information

Application	WB, E, IHC-P
Primary Accession	P11055
Other Accession	NP_002461, 98986453
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	223905
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	MYH3 antibody can be used for detection of MYH3 by Western blot at 1 - 2 g/ml. Antibody can also be used for immunohistochemistry starting at 5 g/mL.

Additional Information

Gene ID	4621
Other Names	Myosin-3, Muscle embryonic myosin heavy chain, Myosin heavy chain 3, Myosin heavy chain, fast skeletal muscle, embryonic, SMHCE, MYH3
Target/Specificity	MYH3; MYH3 antibody is human, mouse and rat reactive. MYH3 antibody is predicted to not cross-react with other members of the myosin heavy chain family.
Reconstitution & Storage	MYH3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	MYH3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MYH3
Function	Muscle contraction.
Cellular Location	Cytoplasm, myofibril. Note=Thick filaments of the myofibrils
Tissue Location	Expressed in fetal bone, thymus, placenta, heart, brain, and liver.

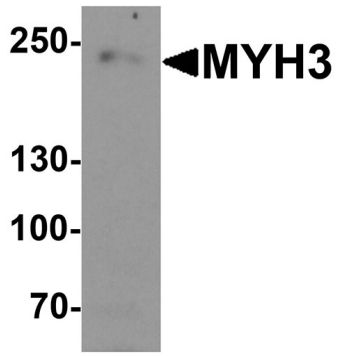
Background

Myosins are actin-based motor proteins that function in the generation of mechanical force in eukaryotic cells (1). MYH3 (myosin, heavy chain, skeletal muscle, embryonic) plays a significant role in skeletal muscle development (2) and is also essential for the proper morphology and function of the developing heart (3). Mutations in this gene have been associated with Freeman-Sheldon syndrome and Sheldon-Hall syndrome (4).

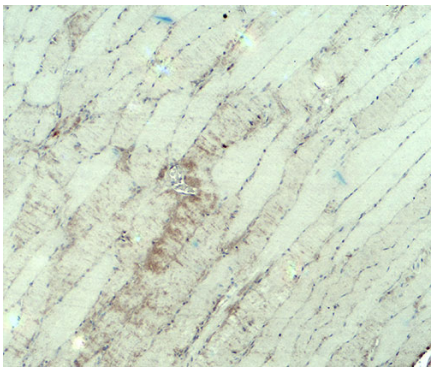
References

Yu H, Waddell JN, Kuang S, et al. Park7 expression influences myotube size and myosin expression in muscle. PLoS One 2014; 9:e92030.
Lagrutta AA, McCarthy JG, Scherczinger CA, et al. Identification and developmental expression of a novel embryonic myosin heavy-chain gene in chicken. DNA 1989; 8:39-50.
Rutland CS, Polo-Parada L, Ehler E, et al. Knockdown of embryonic myosin heavy chain reveals an essential role in the morphology and function of the developing heart. Development 2011; 138:3955-66.
Toydemir RM, Rutherford A, Whitby FG, et al. Mutations in embryonic myosin heavy chain (MYH3) cause Freeman-Sheldon syndrome and Sheldon-Hall syndrome. Nat. Genet. 2006; 38:561-5.

Images



Western blot analysis of MYH3 in Jurkat cell lysate with MYH3 antibody at 1 µg/ml.



Immunohistochemistry of MYH3 in mouse skeletal muscle tissue with MYH3 antibody at 5 µg/ml.