abcam

Product datasheet

Anti-Actin antibody [AC-40] ab11003

★★★★★ 4 Abreviews 49 References 1 Image

Overview

Product name	Anti-Actin antibody [AC-40]
Description	Mouse monoclonal [AC-40] to Actin
Host species	Mouse
Tested applications	**Suitable for:** ELISA, IHC-P, IHC-Fr, ICC/IF, WB, IHC-FoFr, Dot blot
Species reactivity	**Reacts with:** Mouse, Rat, Sheep, Rabbit, Goat, Chicken, Guinea pig, Hamster, Cow, Dog, Human, Pig, Xenopus laevis, Carp, Snail
Immunogen	Synthetic peptide within Human Actin aa 365-375 (C terminal). The exact sequence is proprietary. Sequence: SGPSIVHRKCF Run BLAST with Run BLAST with
Epitope	Monoclonal anti-Actin recognizes an epitope located on the C-terminal end of actin. This epitope is conserved in all actin isoforms.
General notes	Storage in frost-free freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. This product was changed from ascites to tissue culture supernatant on 21 May 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40

	Preservative: 0.097% Sodium azide Constituent: PBS
Purity	Tissue culture supernatant
Purification notes	Purified from TCS.
Clonality	Monoclonal
Clone number	AC-40
Isotype	IgG2a

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab11003 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA	★★★★☆ (1)	Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
ICC/IF	★★★★☆ (1)	Use at an assay dependent concentration. 1/200 determined by indirect immunofluorescent staining of cultured Human or chicken fibroblasts.
WB	★★★★★ (2)	Use at an assay dependent concentration. Predicted molecular weight: 42 kDa. 1/500 using cultured Human or chicken fibroblast extract. Predicted molecular weight: 42 kDa.
IHC-FoFr		Use at an assay dependent concentration.
Dot blot		Use at an assay dependent concentration.

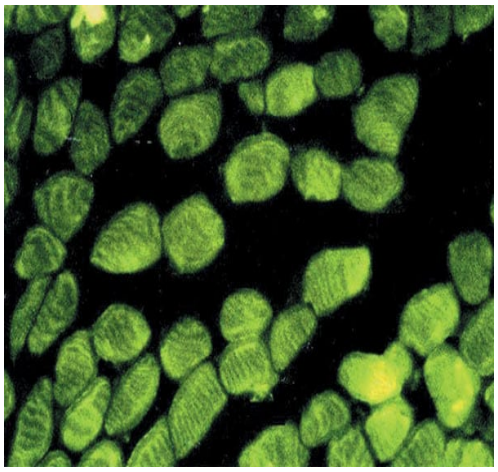
Target

Function Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.

Involvement in disease Defects in ACTA1 are the cause of nemaline myopathy type 3 (NEM3) [MIM:161800]. A form of nemaline myopathy. Nemaline myopathies are muscular disorders characterized by muscle weakness of varying severity and onset, and abnormal thread-or rod-like structures in muscle fibers on histologic examination. The phenotype at histological level is variable. Some patients present areas devoid of oxidative activity containg (cores) within myofibers. Core lesions are unstructured and poorly circumscribed.
Defects in ACTA1 are a cause of myopathy congenital with excess of thin myofilaments (MPCETM) [MIM:161800]. A congenital muscular disorder characterized at histological level by areas of sarcoplasm devoid of normal myofibrils and mitochondria, and replaced with dense masses of thin filaments. Central cores, rods, ragged red fibers, and necrosis are absent.

	Defects in ACTA1 are a cause of congenital myopathy with fiber-type disproportion (CFTD) [MIM:255310]; also known as congenital fiber-type disproportion myopathy (CFTDM). CFTD is a genetically heterogeneous disorder in which there is relative hypotrophy of type 1 muscle fibers compared to type 2 fibers on skeletal muscle biopsy. However, these findings are not specific and can be found in many different myopathic and neuropathic conditions.
Sequence similarities	Belongs to the actin family.
Cellular localization	Cytoplasm > cytoskeleton.

Images



Immunohistochemistry (Frozen sections) - Anti-Actin antibody [AC-40] (ab11003)

Immunohistochemical analysis of frozen Human tongue tissue, using ab11003.

This image was generated using the ascites version of the product.

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