

**DATASHEET**
**Actin pan Mouse Monoclonal Antibody(C2243)**
**CAT. NO. AMA01855**
**KEY FEATURES**

Target	Actin pan	Source / Host	Mouse
Reactivity	Human	Clonality	Monoclonal
Applications	WB, IHC	Conjugation	Unconjugated
Form / Buffer	Mouse IgG2a. Liquid in PBS containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.	Storage	at-20°C

**BACKGROUND**

Actin is a highly conserved protein that polymerizes to produce filaments that form cross-linked networks in the cytoplasm of cells. Actin exists in both monomeric (G-actin) and polymeric (F-actin) forms, both forms playing key functions, such as cell motility and contraction. In addition to their role in the cytoplasmic cytoskeleton, G- and F-actin also localize in the nucleus, and regulate gene transcription and motility and repair of damaged DNA. Plays a role in the assembly of the gamma-tubulin ring complex (gTuRC), which regulates the minus-end nucleation of alpha-beta tubulin heterodimers that grow into microtubule protofilaments. Part of the ACTR1A/ACTB filament around which the dynactin complex is built.

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:100 - 1:300

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

Description	Mouse monoclonal antibody to Actin pan
Specificity	Recognizes endogenous levels of Actin pan protein.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within human Actin pan. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 41; Observed: 42 kD
Form/Buffer	Mouse IgG2a. Liquid in PBS containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.
Alternative Names	ACTB; Actin cytoplasmic 1; Beta-actin; POTEKP; ACTBL3; FKSG30; Putative beta-actin-like protein 3; Kappa-actin; POTE ankyrin domain family member K; ACTG1; ACTB; ACTG; Actin cytoplasmic 2; Gamma-actin
Gene Symbol	ACTG1
Entrez Gene	60; 71(Human)
SwissProt	P60709; Q9BYX7; P63261(Human)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

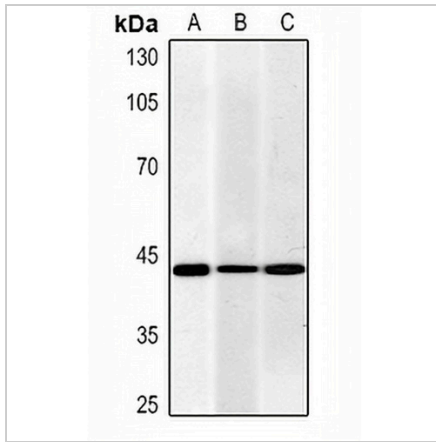
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

**DATASHEET**

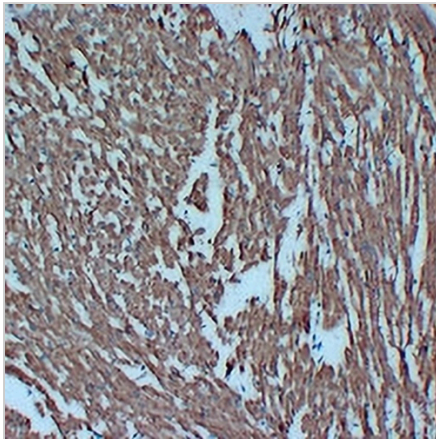
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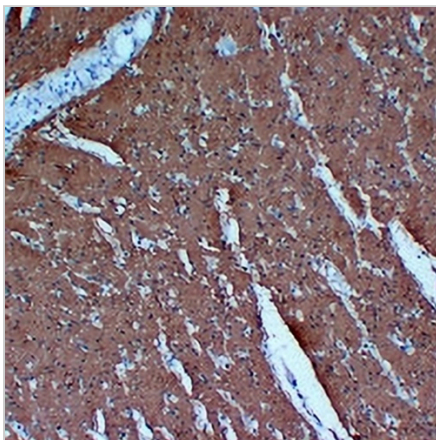
**DATA**



Western blot analysis of Actin pan expression in HeLa (A), HepG2 (B), MCF7 (C) whole cell lysates. (Predicted band size: 41; 42 kD; Observed band size: 42 kD)



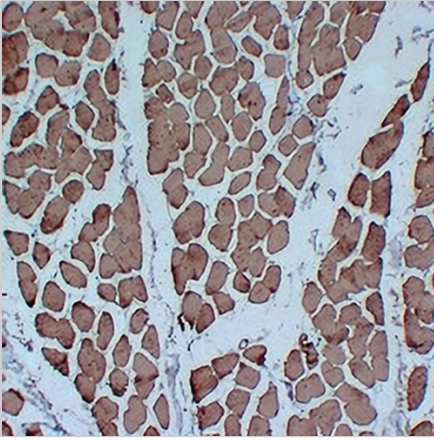
Immunohistochemical analysis of Actin pan staining in human cardiac muscle formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunohistochemical analysis of Actin pan staining in human colon formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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**DATA (CONTINUED)**

Immunohistochemical analysis of Actin pan staining in human skeletal muscle formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.