



Product Information Sheet

Monoclonal Anti-Actin

Catalogue No. MA1000

Lot No. 08A12

Clone: AC-40

Ig type: mouse IgG2a

Size: 100µg/vial

Specificity

Human, mouse, rat, chicken.
No cross reactivity with other proteins.

Recommended application

Western blot
Immunohistochemistry(F)
Immunocytochemistry

Immunogen

Synthetic actin C-terminal peptide
Ser-Gly-Pro-Ser-Ile-Val-His-Arg-Lys-Cys-Phe,
attached to a Multiple Antigen Peptide (MAP) backbone.

Purification

Purified by the goat anti-mouse IgG affinity chromatography.

Application

Western blot

At 2µg/ml with the appropriate system to detect Actin in cells and tissues.

Immunohistochemistry(F)

At 4µg/ml to detect Actin in formalin or acetone fixed tissues.

Immunocytochemistry

Suitable

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Formulation

Lyophilized from 1.2% sodium acetate, with 2mg BSA and 0.01mg NaN₃ as preservative.

Reconstitution

1.2% sodium acetate or neutral PBS. If 1ml of PBS is used, the antibody concentration will be 100µg/ml.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

To reorder contact us at:

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BACKGROUND

Actin, a highly conserved protein, is a major component of both the cytoskeletal and contractile structures in the cell types. It varies in amount, being related to the type of differentiation and to the functional state of cells and tissues. The actins exhibit over 90% sequence homology, but each isoform has a unique NH₂-terminal sequence. The isoforms are comprised of three alpha-actin, one beta-actin, two gamma-actin. Because the amino acid sequence of the C-terminal is the same for almost all actins, this antibody has been raised using a synthetic peptide corresponding to the C-terminal 11 residues.

REFERENCE

1. Gunning, P., Ponte, P., Okayama, H., Engel, J., Blau, H. and Kedes, L. Isolation and characterization of full-length cDNA clones for human alpha-, beta-, and gamma-actin mRNAs: skeletal but not cytoplasmic actins have an amino-terminal cysteine that is subsequently removed. *Mol. Cell. Biol.* 1983; 3 (5), 787-795.
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3. Laing, N.G., Clarke, N.F., Dye, D.E., Liyanage, K., Walker, K.R., Kobayashi, Y., Shimakawa, S., Hagiwara, T., Ouvrier, R., Sparrow, J.C., Nishino, I., North, K.N. and Nonaka, I. Actin mutations are one cause of congenital fibre type disproportion. *Ann. Neurol.* 2004; 56 (5), 689-694 .