

Cat. No:	MAB-94791
Conjugate:	Unconjugated
Size:	100 ug
Clone:	1A42
Concentration:	1mg/ml
Host:	Mouse
Isotype:	IgG1
Immunogen:	Purified bovine Brain
Reactivity:	Human, rat, mouse, cow, pig, horse
Applications:	Western blot – At 1:1000 Immunohistochemistry(P) – At 1:100-1:200 Immunohistochemistry(F) – At 1:100 -1:200 Immunocytochemistry (ICC): At: 1:100 -1:500
Molecular Weight:	42kDa
Purification:	Purified by immunochromatography

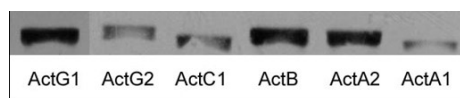
Background:

Actin is one of the most abundant and highly conserved proteins of eukaryotes (1-5). Mammalian actins are the product of six distinct but closely related genes with differing distribution patterns in cell types and in tissues. The amino acid sequences of the six human actin gene products are 94-97% identical, so antibodies which bind all six gene products are to be expected. A sequence alignment of the six human actin can be downloaded from here. The molecular weight of all six proteins is ~42kDa, and one or more actins is found in essentially every type of crude cellular and tissue extract. As a result, antibodies to actin are widely used as western blotting standards to verify that the various steps of the western blotting procedure have been performed correctly. In addition, actin is regarded as a “house keeping” protein This antibody pan-specific actin and recognizes six human actin proteins expressed in bacteria.

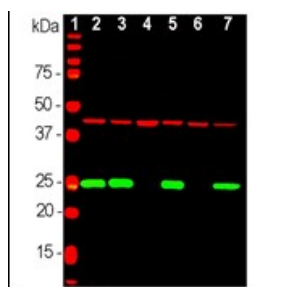
Form: Liquid

Buffer: Liquid 50% PBS, 50% glycerol plus 5mM NaN₃.

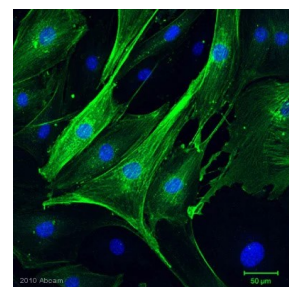
Storage: At -20°C for one year. After reconstitution, at 4°C for three month. It can also be aliquoted and stored frozen at -20°C for longer time.



The HGNC names for the actin isotypes are two γ gene products. γ -1 actin and γ -2, which are enteric and smooth muscle actins (ACTG1 and ACTG2). The single β actin is ACTB, and α -skeletal actin, α -vascular smooth muscle actin and α -cardiac muscle are ACTA1, ACTA2, and ACTC1.



Western blot analysis using MAB-94791 of tissue and cell lysates probed with mouse mAb against actin, 1A42 in red. [1] protein standard, [2] rat brain, [3]



MAB-94791 staining alpha smooth muscle Actin in human IMR-90 (Human Lung Fibroblast Cell Line) cells by ICC/IF (Immunocytochemistry/immunofluorescence)

mouse brain, [4] NIH-3T3, [5] HEK293, [6] HeLa, [7] SH-SY5Y cells. The same blot was simultaneously probed with chicken pAb to UCHL-1, a marker of neuronal lineage cells, in green

nce). Cells were fixed with paraformaldehyde, permeabilized with 0.1% TritonX-100 and blocked with 100% Cad-Block for 30 minutes at room temperature. Samples were incubated with primary antibody 3.41 μ g/ml in antibody diluent buffer for 16 hours at 4°C. An Alexa Fluor® 488-conjugated polyclonal Goat anti-mouse IgG, dilution 1/400, was used as secondary antibody.

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