

beta-Actin (N-Terminal). Mouse Monoclonal Antibody

**BACKGROUND**

Actins are highly conserved proteins that are involved in cell motility, structure and integrity, processes that are crucial for tissue development and the development of organism. The actin cytoskeleton is one of the principal drivers of cell motility and is capable of responding to complex signaling cascades. Recent evidence suggests that it may play key roles in regulating apoptosis and aging. Beta actin is one of six different actin isoforms which have been identified. Like GAPDH,  $\beta$ -actin is constitutively expressed at high levels in almost all tissues and cell lines making it ideal for use as a loading control marker in immunoblots.

**ORDERING INFORMATION**

**CATALOG NUMBER**  
X2672M

**SIZE**  
100  $\mu$ g  
**FORM**

**HOST/CLONE**  
Mouse Clone BA3R

**FORMULATION**  
10mM PBS, pH 7.2, with 0.05% Sodium Azide

**CONCENTRATION**  
See vial for concentration

**ISOTYPE**  
IgG2b

**APPLICATIONS**  
WB, ELISA, DOT BLOT,

**SPECIES REACTIVITY**  
Human, Mouse, Rat, Rabbit, Chicken

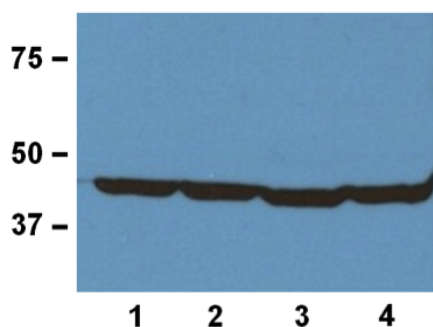
**ACCESSION NUMBER**

Human	P60709
Mouse	P60710
Rat	P60711
Chicken	P60706

**IMMUNOGEN**

$\beta$ -Actin N-terminal peptide-KLH conjugate

Legend: Fig. 1:1000 (1 $\mu$ g/mL) Ab dilution used in WB of 20 $\mu$ g/lane liver tissue lysates from human (1), mouse (2), rat (3), and rabbit (4)



**POSITIVE CONTROL/TISSUE EXPRESSION**

Recognizes native and denatured forms of  $\beta$ -Actin (~42kDa)

**COMMENTS**

WB (with ECL): 1:1000-10,000 dilutions (incubate for 1 hour at room temperature)

IS: 1:500-2000 dilution

Optimal concentration should be evaluated by serial dilutions.

**PURIFICATION**

Protein A/G Chromatography

**SHIP CONDITIONS**

Ship at ambient temperature, freeze upon arrival

**STORAGE CUSTOMER**

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

**STABILITY**

Products are stable for one year from purchase when stored properly

**REFERENCES**

1. Ponte P., Ng S.Y., Engel J., Gunning P., Kedes L., Evolutionary conservation in the untranslated regions of actin mRNAs: DNA sequence of a human beta-actin cDNA. Nucleic Acids Res. 12:1687-1696(1984)
2. Nakajima-Iijima S., Hamada H., Reddy P., Kakunaga T., Molecular structure of the human cytoplasmic beta-actin gene: interspecies homology of sequences in the introns. Proc. Natl. Acad. Sci. U.S.A. 82:6133-6137(1985)
3. Procaccio V., Salazar G., Ono S., Styers M.L., Gearing M., Davila A., Jimenez R., Juncos J., Gutekunst C.-A., Meroni G., Fontanella B., Sontag E., Sontag J.-M., Faundez V., Wainer B.H. A mutation of beta -actin that alters depolymerization dynamics is associated with autosomal dominant developmental malformations, deafness, and dystonia. Am. J. Hum. Genet. 78:947-960(2006) [PubMed: 16685646] [Abstract]

**PRODUCT SPECIFIC REFERENCES**