

#3402 Store at -20°C

Myosin Va Antibody



✓ 100 µl
(10 western blots)

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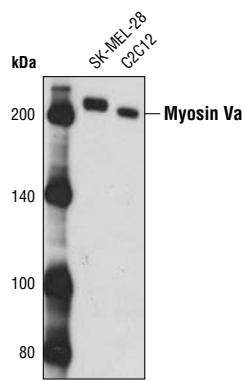
rev. 02/03/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, IF-F Endogenous	H, M, R, (Mk)	207 kDa	Rabbit**

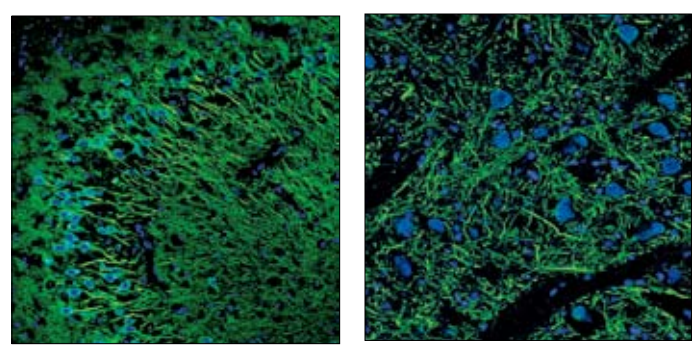
Background: Myosin Va is a molecular motor protein involved in the transport of organelles, vesicles and other cellular cargo along actin filaments (reviewed in 1). The molecule consists of two identical heavy chains, which dimerize via helical domains in a coiled coil structure. The amino-terminal motor domains of the heavy chains contain both the ATPase and the actin-binding activities of myosin Va. The globular tail domains act in a regulatory capacity, binding the myosin Va cargo (2) or inhibiting motor activity by binding the head domains and preventing ATP consumption (3). Mutation of the murine dilute gene, which encodes myosin Va, causes defects in coat pigmentation as well as severe neurological defects (4). In melanocytes, the coiled coil structure of myosin Va is important in regulating the trafficking of melanosomes in conjunction with melanophilin and Rab27a (5). Myosin Va regulates trafficking and exocytosis of secretory granules in neuroendocrine cells (reviewed in 6) as well as RNA transport and distribution (7).

Specificity/Sensitivity: Myosin Va Antibody detects endogenous levels of total myosin Va heavy chain. Based on sequence homology, the antibody is expected to detect all known myosin Va splice variants.



Western blot analysis of extracts from SK-MEL-28 and C2C12 cells using Myosin Va Antibody.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide (KLH-coupled) corresponding to residues near the carboxy terminus of human myosin Va.



Confocal immunofluorescent analysis of the hippocampus (left) and pons region (right) of adult rat brain using Myosin Va Antibody (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Entrez-Gene ID #4644
Swiss-Prot Acc. #Q99104

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (IF-F)	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

- (1) Desnos, C. et al. (2007) *Biol Cell* 99, 411–23.
- (2) Wu, X. et al. (1997) *J Cell Sci* 110 (Pt 7), 847–59.
- (3) Li, X.D. et al. (2006) *J Biol Chem* 281, 21789–98.
- (4) Mercer, J.A. et al. (1991) *Nature* 349, 709–13.
- (5) Hume, A.N. et al. (2006) *Mol Biol Cell* 17, 4720–35.
- (6) Eichler, T.W. et al. (2006) *Biochem Soc Trans* 34, 671–4.
- (7) Salerno, V.P. et al. (2008) *Cell Motil Cytoskeleton* 65, 422–33.

IMPORTANT: For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.