Myosin Va Antibody

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 melanosin 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.

Recommended Antibody Dilutions:
- Western blotting: 1:1000
- Immunoprecipitation: 1:100
- Immunofluorescence (I-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.

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.

Entrez-Gene ID #4644
UniProt ID #Q99104

Applications
- Western (W), IP, IF-F
- Endogenous

Species Cross-Reactivity*
- H, M, R, (Mk, C)

Molecular Wt.
- 207 kDa

Source
Rabbit **

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.

Applications Key:
- W—Western
- IP—Immunoprecipitation
- IHC—Immunohistochemistry
- CIP—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
- Mm—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

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