Revision 1

Store at -20C

#3402

Myosin Va Antibody

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-F	H M R	Endogenous	207	Rabbit	#Q99104	17918

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (Frozen)	1:50

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.

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.

Species predicted to react based on 100% sequence homology

Monkey, Chicken, Pig

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human myosin Va.

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).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

Trademarks and Patents

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.