



Myosin VI (MUD-19): sc-58808

BACKGROUND

Myosin VI (MYO6), a molecular motor involved in intracellular vesicle and organelle transport, is the only Myosin motor that binds to the pointed end of Actin. This unique Myosin has only one light chain in the lever-arm domain and has highly irregular stepping with a wide range of step sizes, unlike that of other characterized Myosins. It associates with Clathrin-coated vesicles and disabled 2, indicating a role for Myosin VI in endocytosis. Mouse Myosin VI is expressed within the sensory hair cells of the cochlea. Human Myosin VI is mapped to the centromeric region of chromosome 6, a region that shows syntenic homology with the corresponding mouse chromosome 9 region, where the Snell's Waltzer mutation is located. The behavioral effects of the mouse Snell's Waltzer mutation are lack of responsiveness to sound, hyperactivity, head tossing and circling, due to the disorganization and fusing of stereocilia bundles within the inner ear. Defects of Myosin VI cause autosomal dominant nonsyndromic sensori-neural deafness in humans. Human Myosin VI is expressed in fetal cochlea and brain, as well as in adult brain.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MYO6 (human) mapping to 6q13; Myo6 (mouse) mapping to 9 E1.

SOURCE

Myosin VI (MUD-19) is a mouse monoclonal antibody raised against amino acids 291-302 of Myosin VI of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Myosin VI (MUD-19) is recommended for detection of Myosin VI of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for Myosin VI siRNA (h): sc-37133 and Myosin VI siRNA (m): sc-37134.

Molecular Weight of Myosin VI: 150 kDa.

Positive Controls: rat liver extract: sc-2395.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.