

# Myosin XVIIIb (N-19): sc-48598

## BACKGROUND

Myosin XVIIIb (MYO18B) is a 2,567 amino acid, unconventional myosin heavy chain that is expressed mainly in human cardiac and skeletal muscles and, at much lower levels, in the testis. Myosin XVIIIb is located in the cytoplasm of undifferentiated myoblast cells and has an N-terminal head domain functioning as a motor (with an ATP-binding site as well as an actin-binding region), a neck region containing an IQ motif, and a C-terminal tail with a short coiled-coil domain allowing for dimerization to form a two-headed structure. Sug1, a regulator of the 26S Proteasome, binds to the C-terminal tail of Myosin XVIIIb. This Sug1 binding causes an upregulation of Myosin XVIIIb. Myosin XVIIIb is frequently deleted, mutated and/or hypermethylated in lung and ovarian cancers, suggesting its candidacy as a tumor suppressor. Furthermore, the Histones H3 and H4 play a role in the regulation of Myosin XVIIIb expression, so histone deacetylation surrounding the promoter region may be involved in lung and ovarian carcinomas.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MYO18B (human) mapping to 22q12.1.

## SOURCE

Myosin XVIIIb (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Myosin XVIIIb of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48598 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Myosin XVIIIb (N-19) is recommended for detection of Myosin XVIIIb isoforms 1 and 2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Myosin XVIIIb (N-19) is also recommended for detection of Myosin XVIIIb isoforms 1 and 2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Myosin XVIIIb siRNA (h): sc-61119, Myosin XVIIIb shRNA Plasmid (h): sc-61119-SH and Myosin XVIIIb shRNA (h) Lentiviral Particles: sc-61119-V.

Molecular Weight of Myosin XVIIIb: 285 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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.