

# KLC1 (V-17): sc-13362

## BACKGROUND

The kinesin family of motor proteins comprise at least two forms of conventional kinesin (kinesin-I). They are encoded by different genes and designated ubiquitous kinesin, which is expressed in all cells and tissues, and neuronal kinesin, which is expressed exclusively in neuronal cells. Conventional kinesin is a heterotetramer of two kinesin heavy chain subunits and two kinesin light chain subunits. While the kinesin heavy chain contains motor activity, evidence suggests that the kinesin light chain (KLC1) is involved in either modulation of kinesin heavy chain activity or in cargo binding. The motor protein kinesin is a heterotetramer composed of two heavy chains and two light chains. Kinesin motor activity is dependent on the presence of ATP and microtubules.

## CHROMOSOMAL LOCATION

Genetic locus: KNS2 (human) mapping to 14q32.33; Kns2 (mouse) mapping to 12 F1.

## SOURCE

KLC1 (V-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of kinesin light chain 1 (KLC1) 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-13362 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

KLC1 (V-17) is recommended for detection of kinesin light chain 1 (KLC1) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

KLC1 (V-17) is also recommended for detection of kinesin light chain 1 (KLC1) in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for KLC1 siRNA (h): sc-43880, KLC1 siRNA (m): sc-43881, KLC1 shRNA Plasmid (h): sc-43880-SH, KLC1 shRNA Plasmid (m): sc-43881-SH, KLC1 shRNA (h) Lentiviral Particles: sc-43880-V and KLC1 shRNA (m) Lentiviral Particles: sc-43881-V.

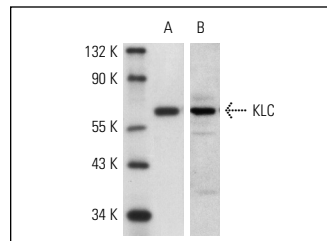
Molecular Weight of KLC1: 61 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, SK-N-SH cell lysate: sc-2410 or SH-SY5Y cell lysate: sc-3812.

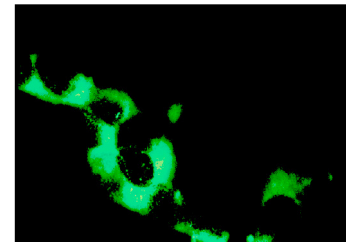
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



kinesin light chain (V-17): sc-13362. Western blot analysis of kinesin light chain expression in SH-SY5Y (A) and IMR-32 (B) whole cell lysates.



KLC1 (V-17): sc-13362. Immunofluorescence staining of methanol-fixed SH-SY5Y cells showing cytoplasmic staining.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **KLC1 (L2): sc-58776**, our highly recommended monoclonal alternative to KLC1 (V-17).