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# CARMIL (m): 293T Lysate: sc-119001

## BACKGROUND

CARMIL, also referred to as leucine-rich repeat containing 16 (LRRC16), is a member of a recently described family of leucine-rich repeat containing proteins which have a variety of functions throughout the body. CARMIL interacts with the Arp2/3 complex, the Actin capping protein CP and Myosin I to help assemble a multi-protein structure that is crucial to proper cell development. Through its interactions with these three proteins, CARMIL regulates capping of Actin filaments at the barbed end, nucleation of Actin by the Arp2/3 complex and Actin filament assembly by Myosin I, a barbed-end directed motor. Together, this complex generates the force for diverse cellular movements such as cytokinesis, phagocytosis and muscle contraction. Defects in the gene encoding CARMIL are thought to have various detrimental effects including reduced chemotactic aggregation, lowered rates of pinocytosis and inefficient assembly of the Myosin-Arp2/3-CP complex. Without proper CARMIL function, cell development is retarded due to improper Actin filament assembly.

## REFERENCES

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## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## CHROMOSOMAL LOCATION

Genetic locus: *Lrrc16a* (mouse) mapping to 13 A3.1.

## PRODUCT

CARMIL (m): 293T Lysate represents a lysate of mouse CARMIL transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

CARMIL (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CARMIL antibodies. Recommended use: 10-20 µl per lane.

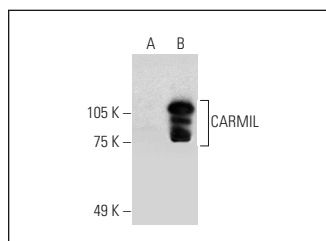
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CARMIL (E-10): sc-365314 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CARMIL expression in CARMIL transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



CARMIL (E-10): sc-365314. Western blot analysis of CARMIL expression in non-transfected: sc-117752 (A) and mouse CARMIL transfected: sc-119001 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

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