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## Produktinformation



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Diagnostik & molekulare Diagnostik



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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# KIF18A (h2): 293T Lysate: sc-128930

## BACKGROUND

The kinesins constitute a large family of microtubule-dependent motor proteins, which are responsible for the distribution of numerous organelles, vesicles and macromolecular complexes throughout the cell. Individual kinesin members play crucial roles in cell division, intracellular transport and membrane trafficking events including endocytosis and transcytosis. KIF18A (kinesin family member 18A), also designated MS-KIF18A, is a 898 amino acid protein that contains one kinesin-motor domain, which is responsible for the ATP-dependent movement of KIF18A across microtubules. KIF18A plays a role in chromosome congression by reducing the amplitude of pre-anaphase oscillations and slowing poleward movement during anaphase, thus suppressing chromosome movements. Expression of KIF18A is induced by estrogen.

## REFERENCES

1. Luboshits, G. and Benayahu, D. 2005. MS-KIF18A, new kinesin; structure and cellular expression. *Gene* 351: 19-28.
2. Mayr, M.I., et al. 2007. The human kinesin KIF18A is a motile microtubule depolymerase essential for chromosome congression. *Curr. Biol.* 17: 488-498.
3. Luboshits, G. and Benayahu, D. 2007. MS-KIF18A, a kinesin, is associated with estrogen receptor. *J. Cell. Biochem.* 100: 693-702.
4. Stumpff, J., et al. 2008. The kinesin-8 motor KIF18A suppresses kinetochore movements to control mitotic chromosome alignment. *Dev. Cell* 14: 252-262.
5. Zusev, M. and Benayahu, D. 2008. New insights on cellular distribution, microtubule interactions and post-translational modifications of MS-KIF18A. *J. Cell. Physiol.* 217: 618-625.
6. Gardner, M.K., et al. 2008. Kinesin-8 molecular motors: putting the brakes on chromosome oscillations. *Trends Cell Biol.* 18: 307-310.
7. Zusev, M. and Benayahu, D. 2009. The regulation of MS-KIF18A expression and cross talk with estrogen receptor. *PLoS ONE* 4: e6407.
8. Du, Y., et al. 2010. The kinesin-8 Kif18A dampens microtubule plus-end dynamics. *Curr. Biol.* 20: 374-380.

## CHROMOSOMAL LOCATION

Genetic locus: KIF18A (human) mapping to 11p14.1.

## PRODUCT

KIF18A (h2): 293T Lysate represents a lysate of human KIF18A transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## 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.

## RESEARCH USE

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

## APPLICATIONS

KIF18A (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive KIF18A 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.

## PROTOCOLS

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