

Dynein (4320-4644): sc-4382 WB

BACKGROUND

Dyneins are high molecular weight ATPases that interact with microtubules to generate force. These proteins are composed of heavy, intermediate and light chains, at least some of which undergo alternative splicing. Axonemal dyneins power eukaryotic cilia and flagella, while cytoplasmic dyneins transport particles and organelles along the microtubules. The carboxy terminus of Dynein is thought to be essential for microtubule-dependent motility and is highly conserved, while the amino terminal regions are more variable. Dyneins also play a role in transporting condensed chromosomes during mitosis. The dynein motor performs fundamental transportation tasks critical to the cell. Defects in its structure can prove fatal for the cell. This machine converts chemical energy of ATP into mechanical energy that moves material through the cell.

REFERENCES

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SOURCE

Dynein (4320-4644) is expressed in *E. coli* as a 63 kDa tagged fusion protein corresponding to amino acids 4320-4644 of dynein heavy chain of human origin.

PRODUCT

Dynein (4320-4644) is purified from bacterial lysates (>98%) by column chromatography; supplied as 10 µg protein in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

Dynein (4320-4644) is suitable as a Western blotting control for sc-7526 and sc-9115.

SELECT PRODUCT CITATIONS

- Cheng, H.H., et al. 2006. Heavy chain of cytoplasmic dynein is a major component of the postsynaptic density fraction. *J. Neurosci. Res.* 84: 244-254.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

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.