

Store at
-20°C

#11993

Phospho-KIF1B (Ser1487) Antibody

www.cellsignal.com

100 µl (10 western blots)

Support: 877-678-TECH (8324)
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orders@cellsignal.comEntrez-Gene ID #23095
UniProt ID #O60333

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For Research Use Only. Not For Use In Diagnostic Procedures.

| Applications W, IP Endogenous | Species Cross-Reactivity* H, (M, R, Mk) | Molecular Wt. 140, 200 kDa | Isotype Rabbit** |
|-------------------------------------|--|-------------------------------|---------------------|
|-------------------------------------|--|-------------------------------|---------------------|

Background: Kinesin-like protein KIF1B is a member of the kinesin 3 family of C-kinesins that are characterized by a kinesin-motor domain in the carboxy-terminal region. As part of the general mechanism of kinesin-mediated cellular transport, C-kinesins are known to drive microtubule plus and minus end motilities (1-3). KIF1B is implicated in the transport of synaptic proteins to the cell periphery in neuronal cell axons by interaction with Rab3 guanine nucleotide exchange factor (3). Mitochondria are also often transported in axons by KIF1B (3-4).

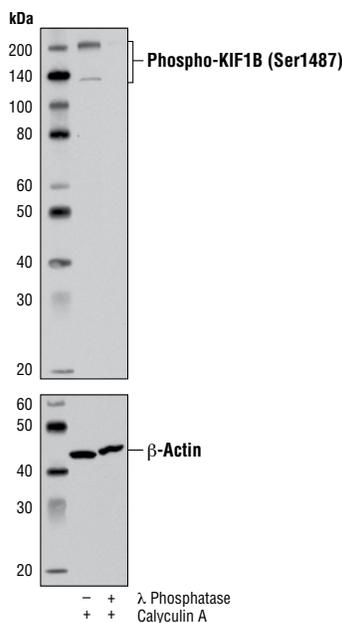
Quantitative mass spectrometry profiling of mitotic phosphorylation revealed putative phosphorylation sites of KIF1B (5). Phospho-KIF1B (Ser1487) Antibody is directed at a site identified by Cell Signaling Technology® (CST) using PhosphoScan®, CST's LC-MS/MS platform for modification site discovery. Phosphorylation at Ser1487 was discovered using an Akt substrate antibody. Please visit PhosphoSitePlus®, CST's modification site knowledgebase, at www.phosphosite.org for more information.

Specificity/Sensitivity: Phospho-KIF1B (Ser1487) Antibody recognizes endogenous levels of KIF1B protein only when phosphorylated at Ser1487.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser1487 of human KIF1B protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Hirokawa, N. et al. (1998) *Curr Opin Cell Biol* 10, 60-73.
- (2) Dagenbach, E.M. and Endow, S.A. (2004) *J Cell Sci* 117, 3-7.
- (3) Hirokawa, N. et al. (2009) *Nat Rev Mol Cell Biol* 10, 682-96.
- (4) Wozniak, M.J. et al. (2005) *BMC Cell Biol* 6, 35.
- (5) Dephoure, N. et al. (2008) *Proc Natl Acad Sci USA* 105, 10762-7.



Western blot analysis of extracts from PC-3 cells, treated with Calyculin A #9902 (100 nM, 5 min) or Calyculin A and λ phosphatase, using Phospho-KIF1B (Ser1487) Antibody (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

| | |
|---------------------|-------|
| Western blotting | 1:100 |
| Immunoprecipitation | 1:50 |

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.