Revision 1

Store at -20C

#11993

Phospho-KIF1B (Ser1487) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	140, 200	Rabbit	#O60333	23095

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

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.

Specificity/Sensitivity

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

Species predicted to react based on 100% sequence homology

Mouse, Rat, Monkey

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

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.

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 U S A* 105, 10762-7.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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Limited Uses

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