

Store at
-20C
#13817**KIF3B Antibody**

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	85	Rabbit	#O15066	9371

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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

KIF3B Antibody recognizes endogenous levels of total KIF3B protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human KIF3B protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Kinesin superfamily proteins (KIFs) are molecular motors that drive directional, microtubule-dependent intracellular transport of membrane-bound organelles and other macromolecules (e.g., proteins, nucleic acids). The intracellular transport functions of KIFs are fundamentally important for a variety of cellular functions, including mitotic and meiotic division, motility/migration, hormone and neurotransmitter release, and differentiation (1-4). Disruptions to KIF-mediated intracellular transport have been linked with a variety of pathologies, ranging from tumorigenesis to defects in higher order brain function such as learning and memory (4-6).

KIF3B binds the related kinesin family member 3A (KIF3A) and kinesin-associated protein 3 (KAP3) to form kinesin-2, an ATP-dependent heterotrimeric motor protein complex that uses plus-end-directed microtubule sliding activity to drive anterograde organelle transport (7). Studies in the zebrafish model suggest that KIF3B is required for the development and function of cilia in multiple cell types (8). Research studies show that KIF3B protein is upregulated in human hepatocellular carcinoma and that its expression is associated with poor prognosis in this cancer type (9).

Background References

- Hirokawa, N. et al. (2009) *Nat Rev Mol Cell Biol* 10, 682-96.
- Yu, Y. and Feng, Y.M. (2010) *Cancer* 116, 5150-60.
- Park, J.J. et al. (2008) *Mol Endocrinol* 22, 989-1005.
- Hirokawa, N. et al. (2010) *Neuron* 68, 610-38.
- Yoshimura, Y. et al. (2010) *Mol Cell Biol* 30, 2206-19.
- Hirokawa, N. and Noda, Y. (2008) *Physiol Rev* 88, 1089-118.
- Yamazaki, H. et al. (1995) *J Cell Biol* 130, 1387-99.
- Zhao, C. et al. (2012) *Proc Natl Acad Sci U S A* 109, 2388-93.
- Huang, X. et al. (2014) *Dig Dis Sci* 59, 795-806.

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

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.