

KIFC2 Polyclonal Antibody

Catalog Number PA1-641

Product data sheet

Details		Species Reactivity	
Size	200 µL	Species reactivity	Mouse
Host/Isotope	Rabbit / IgG	Published species	Rabbit, Rat, Mouse
Class	Polyclonal	Tested Applications	
Type	Antibody	Western Blot (WB)	Dilution * 1:100
Immunogen	Synthetic Peptide: C S(780) G L T L E P P G D P P P(792)	Published Applications	
Conjugate	Unconjugated	Western Blot (WB)	See 1 publications below
Form	Liquid	Immunohistochemistry (IHC)	See 1 publications below
Concentration	1 mg/mL	Immunoprecipitation (IP)	See 1 publications below
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	

Product specific information

PA1-641 detects kinesin C2 (KIFC2) from mouse tissues. PA1-641 has been successfully used in Western blot procedures. By Western blot, this antibody detects an ~100 kDa protein representing KIFC2 from mouse brain homogenate. PA1-641 immunizing peptide corresponds to amino acid residues 780-792 from mouse KIFC2. PA1-641 immunizing peptide (Cat. # PEP-041) is available for use in neutralization and control experiments.

Background/Target Information

Kinesins are a superfamily of microtubule-associated motor proteins involved in a variety of cellular processes including membranous organelle transport and cell division. Kinesin has been found in a variety of organisms and cell types and is subject to spatial and temporal regulation. These proteins have a modular structure which includes a conserved motor domain of approximately 350 amino acids, which is responsible for microtubule binding and ATP hydrolysis. In addition to the motor domain, subfamily members share common domain organization, exhibit sequence similarity, motility properties, and cellular functions outside of the motor domain. An expansive phylogenetic tree of kinesins and kinesin-related proteins (KRPs) has been assembled based on this information. Kinesin C2 (KIFC2) is a C-type kinesin based on the position of the motor domain towards the carboxyl-terminus of the protein and is similar to members of the karyogamy protein 3 (KAR3) family involved in cell division. KIFC2 protein expression has been demonstrated in axons and dendrites of the central and peripheral nervous system. Unlike other C-type motor proteins, KIFC2 appears to play a role in retrograde axonal transport.

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PubMed References For KIFC2 Polyclonal Antibody

1 Western Blot References

Species / Dilution	Summary
	PA1-641 was used in western blot to study the role of a mutant SOD1 in impaired axonal transport of choline acetyltransferase and acetylcholine
Mouse / Not Cited	Human molecular genetics (2009; 18: 942) "Mutant SOD1 impairs axonal transport of choline acetyltransferase and acetylcholine release by sequestering KAP3." Author(s):Tateno M,Kato S,Sakurai T,Nukina N,Takahashi R,Araki T PubMed Article URL: http://dx.doi.org/10.1093/hmg/ddn422

1 Immunohistochemistry References

Species / Dilution	Summary
	PA1-641 was used in immunohistochemistry to investigate the mechanism of the movement of late endocytic vesicles.
Rat / Not Cited	Molecular biology of the cell (2004; 15: 3688) "Microtubule-dependent movement of late endocytic vesicles in vitro: requirements for Dynein and Kinesin." Author(s):Bananis E,Nath S,Gordon K,Satir P,Stockert RJ,Murray JW,Wolkoff AW PubMed Article URL: http://dx.doi.org/10.1091/mbc.e04-04-0278

1 Immunoprecipitation References

Species / Dilution	Summary
	PA1-641 was used in immunoprecipitation to characterize a new neuron-specific kinesin-like protein
Rabbit / Not Cited	Neuron (1997; 18: 425) "KIFC2 is a novel neuron-specific C-terminal type kinesin superfamily motor for dendritic transport of multivesicular body-like organelles." Author(s):Saito N,Okada Y,Noda Y,Kinoshita Y,Kondo S,Hirokawa N PubMed Article URL: http://dx.doi.org/10.1016/s0896-6273(00)81243-x

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