

11-390-C025

Monoclonal Antibody to Kinesin (heavy chain) Purified Antibody (0.025 mg)

Clone:	KN-02
Isotype:	Mouse IgM
Specificity:	<p>The antibody KN-02 recognizes heavy chain of conventional kinesin associated with vesicles and with lower affinity with denaturated molecule. Epitope is located in coiled-coil stalk domain. It stains Western blots of kinesin-enriched preparations.</p> <p>Epitope mapping (by limited proteolysis of partially purified porcine kinesin) followed by immunoblotting has revealed that antibodies KN-01, KN-02 and KN-03 react with different sets of fragments.</p> <p>The antibody KN-02 does not react with kinesin bound to taxol-stabilized microtubules.</p>
Immunogen:	Enriched fraction of porcine brain kinesin.
Species Reactivity:	Human, Porcine, Mouse, Rat, Other not tested
Application:	Immunocytochemistry
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified from ascites by thiophilic adsorption-affinity chromatography.
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not use after expiration date stamped on vial label. Do not freeze.
Expiration:	See vial label
Lot Number:	See vial label
Background:	<p>Kinesin belongs to the group of microtubule-associated motor proteins known to convert chemical energy released from nucleoside triphosphates (preferentially from ATP) into mechanical energy. Conventional kinesin, member of the kinesin superfamily comprising more than 100 proteins, is involved in the anterograde vesicle transport in neuronal cells. Kinesin purified from mammalian brain homogenates is a heterotetramer consisting of two heavy (120 to 130 kDa) and two light chains (60 to 70 kDa), resulting in a molecular mass about 400 kDa. Each heavy chain contains an N-terminal globular motordomain with both a microtubule-binding site and an ATPase active center, stalk region responsible for heavy chain dimerization and finally C-terminal globular tail domain, which is implicated in cargo binding. Light chains may have a regulatory function.</p>
References:	<p>*Macurek L, Draberova E, Richterova V, Bohm KJ, Draber P.: Monoclonal antibodies KN-02 and KN-03 against the heavy chain of kinesin. Hybrid Hybridomics. 2002 Dec;21(6):457-62.</p> <p>*Malcová-Janatová I, Richterová V, Dráber P, Hasek J.: Preparation of human recombinant kinesin heavy chain and epitope mapping of its structural domains. Folia Microbiol (Praha). 2004;49(6):665-70.</p>

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