

Product datasheet for **TA396531S**

KIF5B Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	WB: 1:1000 IHC: User Optimized ELISA: 1:10,000
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Eg5 was prepared from whole rabbit serum produced by repeated immunizations with a truncated Eg5 construct expressed in E. coli corresponding to human Eg5 protein.
Specificity:	Anti-Eg5 is directed against the human Eg5 protein. The product was prepared from monospecific antiserum by delipidation and defibrination. A BLAST analysis was used to suggest reactivity with human. Cross-reactivity with Eg5 from other sources have not been determined.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	46 mg/mL - lot specific
Conjugation:	Unconjugated
Storage:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Stability:	Expiration date is one (1) year from date of receipt.
Gene Name:	kinesin family member 5B
Database Link:	Entrez Gene 3799 Human P52732



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Background:

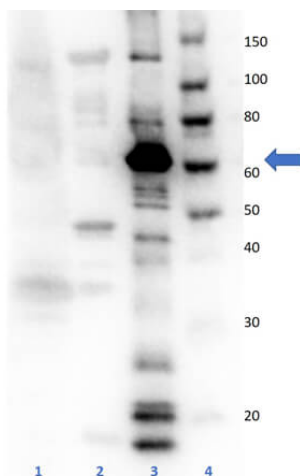
Eg5 (also known as kinesin-5 and KIF11) is a homo-tetramer which cross-links anti-parallel microtubules in the mitotic spindle to maintain spindle bipolarity. Eg5, a member of the Kinesin-5 subclass of kinesins, is a plus-end-directed tetrameric kinesin-family protein that influences the assembly and organization of the mitotic spindle, a self-assembled and dynamic microtubule-based structure that orchestrates chromosome segregation in dividing cells. Eg5 action is essential: when it is depleted from the cytoplasm of meiotically-mature *Xenopus laevis* eggs, abnormal monopolar spindles form, preventing successful division. Eg5 is expressed in all cells during mitosis and in post-mitotic neurons during development. In developing neurons pharmacological inhibition and siRNA knockdown of Eg5 results in longer axons, more branches, fewer bouts of axon retraction and the inability of growth cones to turn on contact with repulsive substrates. In migratory neurons, inhibition of Eg5 causes neurons to migrate in a random pattern and form shorter leading processes. In adult neurons, Eg5 has a similar effect on inhibiting the rate of short microtubule transport so pharmacological inhibition of adult Eg5 (i.e Monastrol) may be a potential therapeutic tool for the augmentation of adult axon regeneration.

Synonyms:

rabbit anti-Eg5 antibody, Kinesin-like protein KIF11, Kinesin-5, KIF11, Kinesin-related motor protein Eg5, Thyroid receptor-interacting protein 5

Note:

Eg5 antibody has been tested by western blot. For western blots expect a band of approximately 72 kDa in size corresponding to truncated kinesin-1 protein. Specific conditions for reactivity should be optimized by the end user. This antibody is suitable for use in ELISA.

Product images:

Western Blot of Rabbit Anti-Eg-5 Antibody. Lane 1: E.coli cell lysate expressing histidine tagged protein. Lane 2: Mouse brain lysate. Lane 3: Recombinant truncated Eg-5. Lane 4: MW Markers. Load: 35µg/lane for cell lysate, 50ng of recombinant protein. Primary antibody: Eg-5 antibody at 1:1000 for overnight at 4°C. Secondary antibody: HRP rabbit secondary antibody (p/n 611-103-122) at 1:40,000 for 60 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 120 kDa and 72 kDa for Eg5.