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Nek7 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI12970

Product Information

Application	WB
Primary Accession	D3ZBE5
Other Accession	NM_001108346, NP_001101816
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Dog, Guinea Pig, Horse, Bovine
Predicted	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Chicken, Dog, Guinea Pig, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34529

Additional Information

Gene ID	360850
Other Names	Serine/threonine-protein kinase Nek7, 2.7.11.1, Never in mitosis A-related kinase 7, NimA-related protein kinase 7, Nek7
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-Nek7 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	Nek7 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

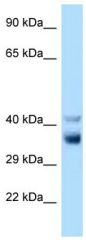
Name	Nek7 {ECO:0000303|PubMed:11516946}
Function	Protein kinase which plays an important role in mitotic cell cycle progression (PubMed:11516946). Required for microtubule nucleation activity of the centrosome, robust mitotic spindle formation and cytokinesis (By similarity). Phosphorylates EML4 at 'Ser-146', promoting its dissociation from microtubules during mitosis which is required for efficient chromosome congression (By similarity). Phosphorylates RPS6KB1 (PubMed:11516946). Acts as an essential activator of the NLRP3 inflammasome assembly independently of its kinase activity (By similarity). Acts by unlocking NLRP3 following NLRP3 tranlocation into the microtubule organizing center (MTOC), relieving NLRP3 autoinhibition and promoting formation of the NLRP3:PYCARD complex, and activation of CASP1 (By similarity). Serves as a

	cellular switch that enforces mutual exclusivity of the inflammasome response and cell division: interaction with NEK9 prevents interaction with NLRP3 and activation of the inflammasome during mitosis (By similarity).
Cellular Location	Nucleus {ECO:0000250|UniProtKB:Q8TDX7}. Cytoplasm {ECO:0000250|UniProtKB:Q8TDX7}. Cytoplasm, cytoskeleton, spindle pole {ECO:0000250|UniProtKB:Q8TDX7}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome {ECO:0000250|UniProtKB:Q8TDX7} Note=Present at centrosome throughout the cell cycle. Also detected at spindle midzone of the anaphase cells and eventually concentrates at the midbody (By similarity). Interaction with ANKS3 prevents its translocation to the nucleus (By similarity) {ECO:0000250|UniProtKB:Q8TDX7}

References

Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Belham C.,et al.Curr. Biol. 11:1155-1167(2001).

Images



WB Suggested Anti-Nek7 Antibody Titration: 1.0 µg/ml
Positive Control: Rat Liver