

## Datasheet for ABIN968054 anti-NEK2 antibody (AA 244-444)



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### Overview

Quantity:	150 µg
Target:	NEK2
Binding Specificity:	AA 244-444
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This NEK2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunoprecipitation (IP), Immunohistochemistry (Formalin-fixed Sections) (IHC (f))

### Product Details

Immunogen:	Human Nek2 aa. 244-444
Clone:	20-Nek2
Isotype:	IgG1
Characteristics:	<ol style="list-style-type: none"> <li>1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.</li> <li>2. Please refer to us for technical protocols.</li> <li>3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.</li> <li>4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.</li> </ol>
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

## Product Details

chromatography.

## Target Details

Target:	NEK2
Alternative Name:	Nek2 ( <a href="#">NEK2 Products</a> )
Background:	<p>Reversible protein phosphorylation is critical for progression through the cell cycle and mitosis. In <i>Aspergillus nidulans</i>, the nima gene (never in mitosis) encodes a protein kinase that is essential for mitosis. Three human genes (nek1, 2, and 3 [Nima-related kinase]) with significant homology to the <i>A. nidulans</i> nima have been reported. The nek2 gene encodes a protein of 445 amino acids and, like its fungal homolog, its expression is regulated throughout the cell cycle. In HeLa cells, Nek2 activity and expression are low during M and G1 phases of the cell cycle. However, both parameters increase during S phase and mitosis. In addition, Nek2 phosphorylates protein substrates exclusively at serine and threonine residues. Thus, like its fungal homolog, Nek2 may be a crucial element in controlling the cell's entry into S phase and mitosis. This antibody is routinely tested by western blot analysis.</p> <p>Synonyms: Nima Related Kinase 2</p>
Molecular Weight:	46 kDa
Pathways:	<a href="#">M Phase</a>

## Application Details

Comment:	Related Products: ABIN968537, ABIN967389
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

## Handling

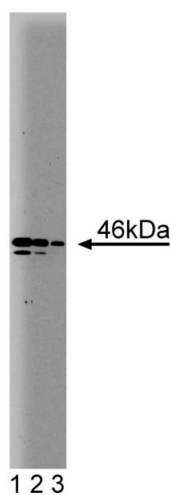
Storage Comment: Store undiluted at -20° C.

## Publications

Product cited in: Fry, Schultz, Bartek, Nigg: "Substrate specificity and cell cycle regulation of the Nek2 protein kinase, a potential human homolog of the mitotic regulator NIMA of *Aspergillus nidulans*." in: **The Journal of biological chemistry**, Vol. 270, Issue 21, pp. 12899-905, (1995) ([PubMed](#)).

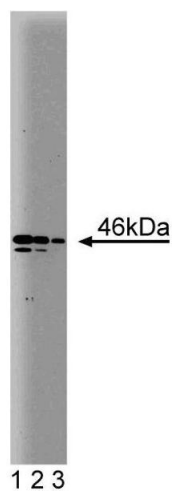
Schultz, Fry, Sütterlin, Ried, Nigg: "Cell cycle-dependent expression of Nek2, a novel human protein kinase related to the NIMA mitotic regulator of *Aspergillus nidulans*." in: **Cell growth & differentiation : the molecular biology journal of the American Association for Cancer Research**, Vol. 5, Issue 6, pp. 625-35, (1994) ([PubMed](#)).

## Images



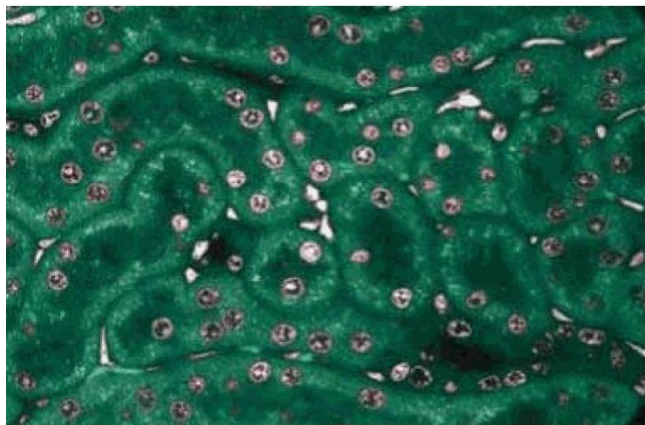
### Western Blotting

Image 1.



### Western Blotting

**Image 2.** Western blot analysis of Nek2 on a Jurkat cell lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the anti- human Nek2 antibody.



#### Immunofluorescence

**Image 3.** Immunofluorescence staining of rabbit kidney.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN968054.