# abcam

#### Product datasheet

## Anti-NEK9 (phospho T210) antibody ab63553

1 References 3 Images

Overview

Product name Anti-NEK9 (phospho T210) antibody

**Description** Rabbit polyclonal to NEK9 (phospho T210)

Host species Rabbit

Tested applications Suitable for: WB, ICC/IF, IHC-P

Species reactivity Reacts with: Human

Predicted to work with: Mouse

**Immunogen** Synthetic peptide corresponding to Human NEK9 (phospho T210).

Database link: **Q8TD19** 

Positive control HeLa cells and extracts from HepG2 cells

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

**Properties** 

Form Liquid

**Storage instructions** Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

Without Mg2+ and Ca2+

Purity Immunogen affinity purified

Purification notes The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-

specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.

**Clonality** Polyclonal

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**Isotype** IgG

## **Applications**

The Abpromise guarantee Our <u>Abpromise guarantee</u> covers the use of ab63553 in the following tested applications.

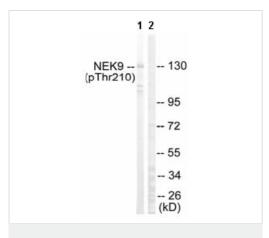
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Detects a band of approximately 130 kDa (predicted molecular weight: 107 kDa).
ICC/IF		1/500 - 1/1000.
IHC-P		Use at an assay dependent concentration.

## **Target**

Function	Pleiotropic regulator of mitotic progression, participating in the control of spindle dynamics and chromosome separation. Phosphorylates different histones, myelin basic protein, beta-casein, and BICD2. Phosphorylates histone H3 on serine and threonine residues and beta-casein on serine residues. Important for G1/S transition and S phase progression.	
Tissue specificity	Most abundant in heart, liver, kidney and testis. Also expressed in smooth muscle cells and fibroblasts.	
Sequence similarities	Belongs to the protein kinase superfamily. NEK Ser/Thr protein kinase family. NIMA subfamily. Contains 1 protein kinase domain.  Contains 6 RCC1 repeats.	
Developmental stage	Expression varied mildly across the cell cycle, with highest expression observed in G1 and stationary-phase cells.	
Domain	Dimerizes through its coiled-coil domain.	
Post-translational modifications	Autophosphorylated on serine and threonine residues. When complexed with FACT, exhibits markedly elevated phosphorylation on Thr-210. During mitosis, not phosphorylated on Thr-210. Phosphorylated by CDK1 in vitro.	
Cellular localization	Cytoplasm. Nucleus.	

## **Images**



Western blot - Anti-NEK9 (phospho T210) antibody (ab63553)

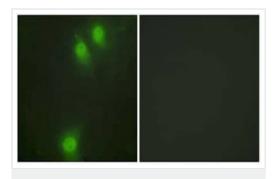
**All lanes :** Anti-NEK9 (phospho T210) antibody (ab63553) at 1/500 dilution

Lane 1: extracts from HepG2 cells at 30 µg/ml

**Lane 2 :** extracts from HepG2 cells at 30  $\mu g$  with immunizing

peptide at 10 µg

**Predicted band size:** 107 kDa **Observed band size:** 130 kDa



Immunocytochemistry/ Immunofluorescence - Anti-NEK9 (phospho T210) antibody (ab63553)

ab63553 at 1/500 dilution staining HeLa cells, without (left) and with (right) immunizing peptide.

Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-NEK9 (phospho T210) antibody (ab63553)

Ab63553 staining Human colon. Staining is localised to the cytoplasm and nucleus.

Left panel: with primary antibody at 1 ug/ml. Right panel: isotype control.

Sections were stained using an automated system DAKO Autostainer Plus , at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 AR buffers EDTA pH 9.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric

detection was completed with diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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