

#### **NIK Antibody**

Catalog # ASC10016

#### **Specification**

### **NIK Antibody - Product Information**

Application WB, E
Primary Accession O99558
Other Accession O99558, 9020
Reactivity Human
Host Rabbit
Clonality Polyclonal
Isotype IgG

Calculated MW Predicted: 104 kDa KDa

Application Notes NIK antibody can be used for detection of

NIK by Western blot at 1 - 2 μg/mL.

# **NIK Antibody - Additional Information**

Gene ID 9020

**Other Names** 

NIK Antibody: HS, NIK, HSNIK, FTDCR1B, Mitogen-activated protein kinase kinase kinase 14, NF-kappa-beta-inducing kinase, HsNIK, mitogen-activated protein kinase kinase kinase 14

#### Target/Specificity

NIK antibody was raised against a 17 amino acid peptide near the carboxy terminus of human NIK.<br/>
NIK. or > <br/>
br > The immunogen is located within the last 50 amino acids of NIK.

## **Reconstitution & Storage**

NIK antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

#### **Precautions**

NIK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### **NIK Antibody - Protein Information**

#### Name MAP3K14 (<u>HGNC:6853</u>)

#### **Function**

Lymphotoxin beta-activated kinase which seems to be exclusively involved in the activation of NF-kappa-B and its transcriptional activity. Phosphorylates CHUK/IKKA, thereby promoting proteolytic processing of NFKB2/P100, which leads to NF-kappa-B activation via the non-canonical pathway (PubMed:<a href="http://www.uniprot.org/citations/25406581" target="\_blank">25406581</a>, PubMed:<a href="http://www.uniprot.org/citations/29230214"

target="\_blank">25406581</a>, PubMed:<a href="http://www.uniprot.org/citations/29230214" target="\_blank">29230214</a>). Has an essential role in the non-canonical NF-kappa-B signaling that regulates genes encoding molecules involved in B-cell survival, lymphoid organogenesis, and immune response (PubMed:<a href="http://www.uniprot.org/citations/25406581"



target="\_blank">25406581</a>). Could act in a receptor-selective manner.

# **Cellular Location** Cytoplasm.

#### **Tissue Location**

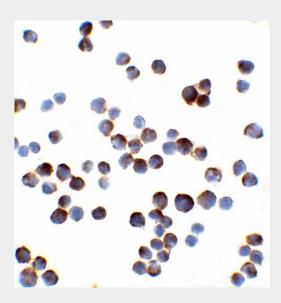
Weakly expressed in testis, small intestine, spleen, thymus, peripheral blood leukocytes, prostate, ovary and colon

## **NIK Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

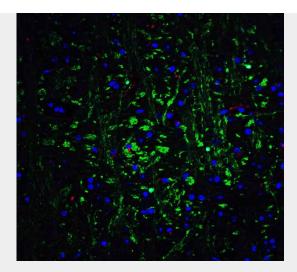
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## **NIK Antibody - Images**



Immunocystochemistry of IL-1RAcP in HeLa cells with IL-1RAcP antibody at 2 μg/ml.





Immunofluorescence of OLIG2 in mouse brain tissue with OLIG2 Antibodyat 20 µg/mL.

# **NIK Antibody - Background**

NIK Antibody: Nuclear factor kappa B (NF- $\kappa$ B) is a ubiquitous transcription factor and an essential mediator of gene expression during activation of immune and inflammatory responses. NF- $\kappa$ B mediates the expression of a great variety of genes in response to extracellular stimuli including IL-1, TNF $\alpha$ , LPS and mitogens. A serine/threonine protein kinase which mediates NF- $\kappa$ B activation by IL-1, TNF $\alpha$  and CD95 was identified recently and designated NIK (for NF- $\kappa$ B inducing kinase). NIK is an activator of I $\kappa$ B kinase alpha and beta (IKK $\alpha$  and IKK $\beta$ ). Therefore, NIK is a key molecule in the NF- $\kappa$ B signaling pathway leading to the induction of a variety of gene expression in response to proinflammatory cytokines and bacteria products.

# **NIK Antibody - References**

Malinin NL, Boldin MP, Kovalenko AV, et al. MAP3K-related kinase involved in NF-κB induction by TNF, CD95 and IL-1. Nature 1997; 385:540-4.

Regnier CH, Song HY, Gao X, et al. Identification and characterization of an IkB kinase. Cell 1997; 90:373-83.

Woronicz JD, Gao X, Cao Z, et al. IkB kinase- $\beta$ : NF-kB activation and complex formation with IkB kinase- $\alpha$  and NIK. Science 1997; 278:866-9.

Ling L, Cao Z, and Goeddel D. NF- $\kappa$ B-inducing kinase activates IKK- $\alpha$  by phosphorylation of Ser-176. Proc. Natl. Acad. Sci. USA 1998; 95:3792-7.