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ZIPK Antibody
Catalog # ASC10047

Specification

ZIPK Antibody - Product Information

Application	**ICC, IHC, WB**
Primary Accession	O43293
Other Accession	BAA81746, 1613
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**40 kDa KDa**
Application Notes	**ZIPK antibody can be used for detection of DNase II expression by Western blot at 1 µg/mL. An approximate 40 kDa band can be detected, which represents the pro-enzyme of DNase II. Antibody can also be used for immunocytochemistry starting at 5 µg/mL. For immunofluorescence start at 5 µg/mL.**

ZIPK Antibody - Additional Information

Gene ID **1613**

Other Names
ZIPK Antibody: ZIP, ZIPK, Death-associated protein kinase 3, DAP-like kinase, DAP kinase 3, death-associated protein kinase 3

Target/Specificity
ZIP kinase antibody was raised against a peptide corresponding to amino acids near the center of human ZIP kinase.

The immunogen is located within amino acids 270 - 320 of ZIPK.

Reconstitution & Storage
ZIPK antibody can be stored at 4℃ for three months and -20℃, 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
ZIPK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ZIPK Antibody - Protein Information

Name DAPK3

Synonyms ZIPK

Function

Serine/threonine kinase which is involved in the regulation of apoptosis, autophagy, transcription, translation and actin cytoskeleton reorganization. Involved in the regulation of smooth muscle contraction. Regulates both type I (caspase-dependent) apoptotic and type II (caspase-independent) autophagic cell deaths signal, depending on the cellular setting. Involved in regulation of starvation-induced autophagy. Regulates myosin phosphorylation in both smooth muscle and non-muscle cells. In smooth muscle, regulates myosin either directly by phosphorylating MYL12B and MYL9 or through inhibition of smooth muscle myosin phosphatase (SMPP1M) via phosphorylation of PPP1R12A; the inhibition of SMPP1M functions to enhance muscle responsiveness to Ca(2+) and promote a contractile state. Phosphorylates MYL12B in non-muscle cells leading to reorganization of actin cytoskeleton. Isoform 2 can phosphorylate myosin, PPP1R12A and MYL12B. Overexpression leads to condensation of actin stress fibers into thick bundles. Involved in actin filament focal adhesion dynamics. The function in both reorganization of actin cytoskeleton and focal adhesion dissolution is modulated by RhoD. Positively regulates canonical Wnt/beta-catenin signaling through interaction with NLK and TCF7L2. Phosphorylates RPL13A on 'Ser-77' upon interferon-gamma activation which is causing RPL13A release from the ribosome, RPL13A association with the GAIT complex and its subsequent involvement in transcript-selective translation inhibition. Enhances transcription from AR-responsive promoters in a hormone- and kinase- dependent manner. Involved in regulation of cell cycle progression and cell proliferation. May be a tumor suppressor.

Cellular Location
Nucleus. Cytoplasm Note=Predominantly localizes to the cytoplasm but can shuttle between the nucleus and cytoplasm; cytoplasmic localization is promoted by phosphorylation at Thr-299 and involves Rho/Rock signaling [Isoform 2]: Nucleus. Cytoplasm

Tissue Location
Widely expressed. Isoform 1 and isoform 2 are expressed in the bladder smooth muscle.

ZIPK Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ZIPK Antibody - Images

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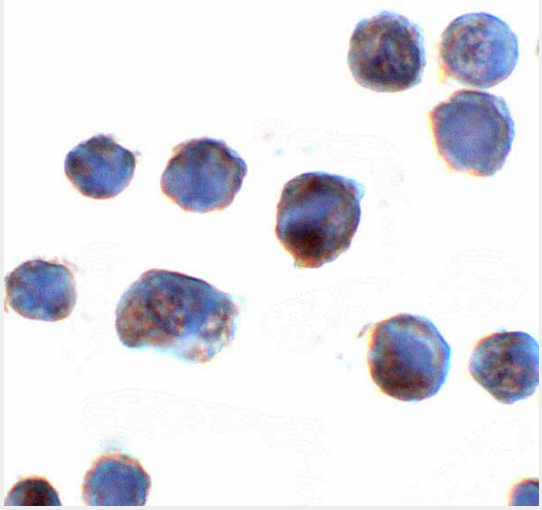
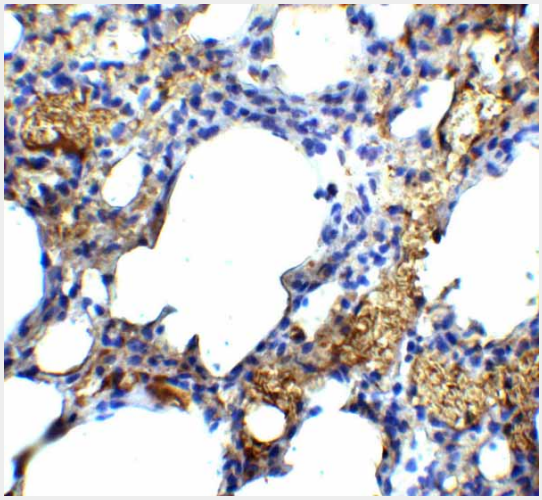
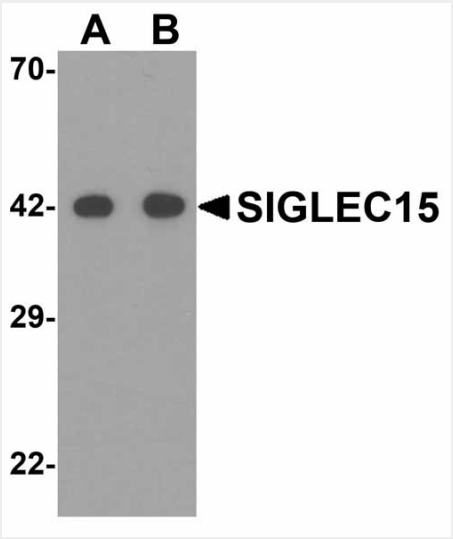


Immunocytochemistry of C18orf42 in HeLa cells with C18orf42 antibody at 2 µg/mL.



Immunohistochemistry of TM4SF1 in mouse lung tissue with TM4SF1 antibody at 5 µg/mL.



Western blot analysis of SIGLEC15 in human kidney tissue lysate with SIGLEC15 antibody at (A) 1 and (B) 2 µg/mL.

ZIPK Antibody - Background

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ZIPK Antibody: Apoptosis is mediated by death domain containing adapter molecules and a caspase family of proteases. Certain serine/threonine protein kinases, such as ASK-1 and RIP, are mediators of apoptosis. A novel serine/threonine kinase that mediates apoptosis was recently identified and designated ZIP kinase. ZIP kinase contains an N-terminal kinase domain and a C-terminal leucine zipper structure and binds to ATF4 that is a member of ATF/CREB family. ZIP kinase has high sequence homology to DAP kinase (death-associated protein kinase), which is a mediator of apoptosis induced by gamma interferon. Overexpression of ZIP kinase induces apoptosis. ZIP and DAP kinases represent a novel kinase family, which mediates apoptosis through their catalytic activities. The messenger RNA was ubiquitously expressed in various tissues.

ZIPK Antibody - References

Kawai T, Matsumoto M, Takeda K, Sanjo H, Akira S. ZIP kinase, a novel serine/threonine kinase which mediates apoptosis. Mol Cell Biol 1998;18:1642-51 (RD1299)