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ZPK Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7214a

Specification

ZPK Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q12852
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**828-859**

ZPK Antibody (C-term) - Additional Information

Gene ID 7786

Other Names
Mitogen-activated protein kinase kinase kinase 12, Dual leucine zipper bearing kinase, DLK, Leucine-zipper protein kinase, ZPK, MAPK-upstream kinase, MUK, Mixed lineage kinase, MAP3K12, ZPK

Target/Specificity
This ZPK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 828-859 amino acids from the C-terminal region of human ZPK.

Dilution
WB~~1:2000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ZPK Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ZPK Antibody (C-term) - Protein Information

Name MAP3K12

Synonyms ZPK

Function Part of a non-canonical MAPK signaling pathway (PubMed:28111074). Activated by APOE, enhances the AP-1-mediated transcription of APP, via a MAP kinase signal transduction pathway composed of MAP2K7 and MAPK1/ERK2 and MAPK3/ERK1 (PubMed:28111074). May be an activator of the JNK/SAPK pathway.

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:Q60700}. Cell membrane {ECO:0000250|UniProtKB:Q60700}. Note=Behaves essentially as an integral membrane protein. {ECO:0000250|UniProtKB:Q60700}

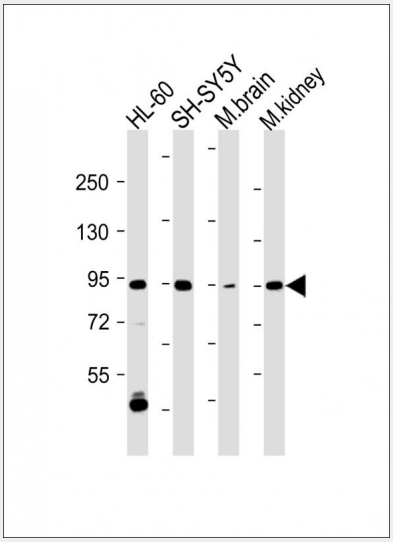
Tissue Location
Highly expressed in brain and kidney.

ZPK Antibody (C-term) - 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

ZPK Antibody (C-term) - Images



All lanes : Anti-ZPK Antibody (C-term) at 1:2000 dilution Lane 1: HL-60 whole cell lysate Lane 2: SH-SY5Y whole cell lysate Lane 3: Mouse brain lysate Lane 4: Mouse kidney lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 93 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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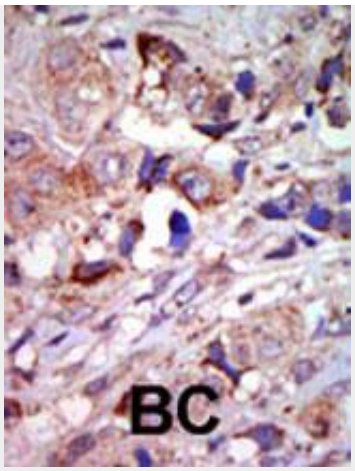

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

ZPK Antibody (C-term) - Background

ZPK is a member of serine/threonine protein kinase family. This kinase contains a leucine-zipper domain, and is predominately expressed in neuronal cells. The phosphorylation state of this kinase in synaptic terminals was shown to be regulated by membrane depolarization via calcineurin. This kinase forms heterodimers with leucine zipper containing transcription factors, such as cAMP responsive element binding protein (CREB) and MYC, and thus may play a regulatory role in PKA or retinoic acid induced neuronal differentiation.

ZPK Antibody (C-term) - References

Itoh, A., et al., Biochem. Biophys. Res. Commun. 313(3):612-618 (2004).
Fukuyama, K., et al., J. Biol. Chem. 275(28):21247-21254 (2000).
Reddy, U.R., et al., Oncogene 18(31):4474-4484 (1999).
Mata, M., et al., J. Biol. Chem. 271(28):16888-16896 (1996).
Hirai, S., et al., Oncogene 12(3):641-650 (1996).

ZPK Antibody (C-term) - Citations

- MicroRNA-130a Targets MAP3K12 to Modulate Diabetic Endothelial Progenitor Cell Function.
- The DLK gene is a transcriptional target of PPARÎ³.