

Product datasheet

Anti-ZIP Kinase antibody [EPR1636Y] ab51602

KO VALIDATED

Recombinant

RabMAb

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Overview

Product name	Anti-ZIP Kinase antibody [EPR1636Y]
Description	Rabbit monoclonal [EPR1636Y] to ZIP Kinase
Host species	Rabbit
Tested applications	Suitable for: WB Unsuitable for: ICC/IF or IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human ZIP Kinase aa 400 to the C-terminus (C terminal). Database link: O43293
Positive control	WB: A431, HeLa and HEK-293T cell lysate.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR1636Y

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab51602 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		1/1000. Detects a band of approximately 53 kDa (predicted molecular weight: 53 kDa).

Application notes

Is unsuitable for ICC/IF or IP.

Target

Function

Serine/threonine kinase which acts as a positive regulator of apoptosis. Phosphorylates histone H3 on 'Thr-11' at centromeres during mitosis. Regulates myosin light chain phosphatase through phosphorylation of MYPT1 thereby regulating the assembly of the actin cytoskeleton, cell migration, invasiveness of tumor cells, smooth muscle contraction and neurite outgrowth. Involved in the formation of promyelocytic leukemia protein nuclear body (PML-NB), one of many subnuclear domains in the eukaryotic cell nucleus, and which is involved in oncogenesis and viral infection.

Sequence similarities

Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. DAP kinase subfamily.
Contains 1 protein kinase domain.

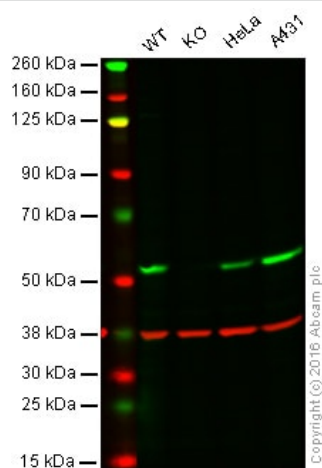
Post-translational modifications

Ubiquitinated. Ubiquitination mediated by the UBE2D3 E3 ligase does not lead to proteasomal degradation, but influences promyelocytic leukemia protein nuclear bodies (PML-NBs) formation in the nucleus.
Autophosphorylated. Phosphorylated by ROCK1.

Cellular localization

Nucleus. Cytoplasm. Nucleus > PML body. Relocates to the cytoplasm on binding PAWR where the complex appears to interact with actin filaments (By similarity). Localizes to promyelocytic leukemia protein nuclear bodies (PML-NBs). Associates to centromeres from prophase to anaphase.

Images



Western blot - Anti-ZIP Kinase antibody
[EPR1636Y] (ab51602)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

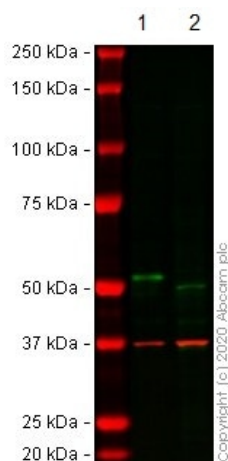
Lane 2: ZIP Kinase knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: A431 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab51602 observed at 53 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab51602 was shown to specifically react with ZIP Kinase in wild-type HAP1 cells. No band was observed when ZIP Kinase knockout samples were examined. Wild-type and ZIP Kinase knockout samples were subjected to SDS-PAGE. Ab51602 and **ab8245** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10,000 dilution respectively. Blots were developed with 800CW Goat anti Rabbit and 680CW Goat anti Mouse secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-ZIP Kinase antibody
[EPR1636Y] (ab51602)

All lanes : Anti-ZIP Kinase antibody [EPR1636Y] (ab51602) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T cell lysate

Lane 2 : DAPK3 CRISPR/Cas9 edited HEK-293T cell lysate

Lysates/proteins at 20 µg per lane.

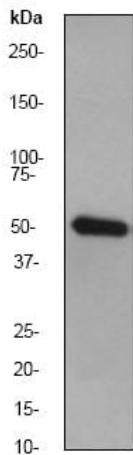
Performed under reducing conditions.

Predicted band size: 53 kDa

Observed band size: 53 kDa

Lanes 1- 2: Merged signal (red and green). Green - ab51602 observed at 53 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

ab51602 was shown to react with ZIP Kinase in wild-type HEK-293T cells in western blot. The band observed in CRISPR/Cas9 edited cell line [ab266755](#) (CRISPR/Cas9 edited cell lysate [ab257407](#)) lane below 53kDa may represent truncated forms and cleaved fragments. This has not been investigated further. Wild-type HEK-293T and DAPK3 CRISPR/Cas9 edited HEK-293T cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab51602 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-ZIP Kinase antibody
[EPR1636Y] (ab51602)

Anti-ZIP Kinase antibody [EPR1636Y] (ab51602) at 1/1000 dilution
+ HeLa cell lysate at 10 µg

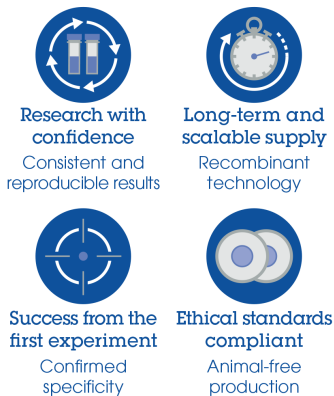
Secondary

Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 53 kDa

Observed band size: 53 kDa

Why choose a recombinant antibody?



Anti-ZIP Kinase antibody [EPR1636Y] (ab51602)

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

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