abcam

Product datasheet

Anti-MK2 antibody [E341] ab32567





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Overview

Product name Anti-MK2 antibody [E341]

Description Rabbit monoclonal [E341] to MK2

Host species Rabbit

Specificity ab32567 recognises MAPKAP Kinase-2.

Tested applications Suitable for: WB

Unsuitable for: Flow Cyt,ICC/IF or IHC

Species reactivity Reacts with: Human

Predicted to work with: Mouse, Rat

Synthetic peptide within Human MK2 aa 350-450 (C terminal). The exact sequence is proprietary. **Immunogen**

Positive control HeLa whole cell lysate (ab150035).

General notes This product is a recombinant monoclonal antibody, which offers several advantages including:

- 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. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA

Purity Protein A purified

Clonality Monoclonal

Clone number E341

Isotype IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab32567 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)	1/500 - 1/1000. Detects a band of approximately 46 kDa (predicted molecular weight: 46 kDa).

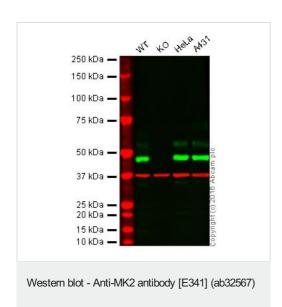
Application notes

Is unsuitable for Flow Cyt,ICC/IF or IHC.

Target

Function	Its physiological substrate seems to be the small heat shock protein (HSP27/HSP25). In vitro can phosphorylate glycogen synthase at 'Ser-7' and tyrosine hydroxylase (on 'Ser-19' and 'Ser-40'). This kinase phosphorylates Ser in the peptide sequence, Hyd-X-R-X(2)-S, where Hyd is a large hydrophobic residue (By similarity). Mediates both ERK and p38 MAPK/MAPK14 dependent neutrophil responses. Participates in TNF alpha-stimulated exocytosis of secretory vesicles in neutrophils. Plays a role in phagocytosis-induced respiratory burst activity.	
Tissue specificity	Expressed in all tissues examined.	
Sequence similarities	Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. Contains 1 protein kinase domain.	
Post-translational modifications	Phosphorylated and activated by MAP kinase.	

Images



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

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

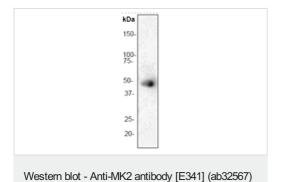
Lane 3: HeLa cell lysate (20 µg)

Lane 4: A431 cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab32567 observed at 48 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

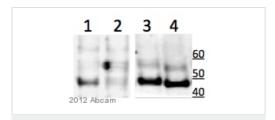
ab32567 was shown to specifically react with MAPKAP Kinase 2 when MAPKAP Kinase 2 knockout samples were used. Wild-type and MAPKAP Kinase 2 knockout samples were subjected to SDS-PAGE. ab32567 and <u>ab8245</u> (loading control to ProteinX2) were diluted to 1/500 and 1/1000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye[®] 800CW) preadsorbed (<u>ab216773</u>) and Goat anti-Mouse IgG H&L

(IRDye $^{@}$ 680RD) preadsorbed (<u>ab216776</u>) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.



Anti-MK2 antibody [E341] (ab32567) at 1/1000 dilution + HeLa cell lysate

Predicted band size: 46 kDa **Observed band size:** 46 kDa



Western blot - Anti-MK2 antibody [E341] (ab32567)

Lanes 1-2: Anti-MK2 (phospho T334) antibody [EPR992Y]

(ab51018) at 1/500 dilution

Lanes 3-4: Anti-MK2 antibody [E341] (ab32567) at 1/500 dilution

Lanes 1 & 3: UV treated HeLa cells

Lanes 2 & 4: UV treated HeLa cells + p38 inhibitor

Secondary

All lanes: IRDye® 680 LICOR goat anti-rabbit.

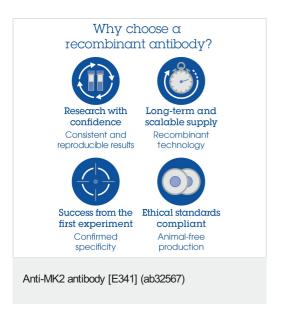
Performed under reducing conditions.

Predicted band size: 46 kDa **Observed band size:** 48 kDa

Additional bands at: 55 kDa (possible cross reactivity)

Exposure time: 1 minute

ab32567 recognise total MK2 (lane 3,4). A control for specificity is shown as UV treated HeLa + p38 inhibitor (lane 2,4). While the intensity of pT334 band is greatly reduced (lane 2), total MK2 remains unaltered (lane 4).



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