abcam

Product datasheet

Anti-MARK4 (phospho T214) + MARK2 (phospho T208) + MARK3 (phospho T234) + MARK1 (phospho T215) antib ab248152

Recombinant RabMAb

6 Images

Overview

Product name	Anti-MARK4 (phospho T214) + MARK2 (phospho T208) + MARK3 (phospho T234) + MARK1 (phospho T215) antib
Description	Rabbit monoclonal [EPR5463] to MARK4 (phospho T214) + MARK2 (phospho T208) + MARK3 (phospho T234) + MARK1 (phospho T215) - BSA and Azide free
Host species	Rabbit
Specificity	This antibody only detects MARK1 phosphorylated at Threonine 215.
Tested applications	**Suitable for:** Dot blot, WB, ELISA **Unsuitable for:** Flow Cyt,ICC/IF,IHC-P or IP
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	ab248152 is the carrier-free version of **ab126731**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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

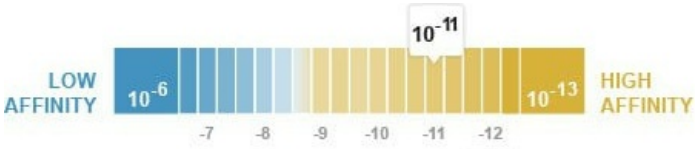
- Animal-free production

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. Store at +4°C. Do Not Freeze.
Dissociation constant (K_D)	$K_D = 1.62 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5463
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab248152 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
Dot blot		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 110 kDa (predicted molecular weight: 89 kDa).
ELISA		Use at an assay dependent concentration.

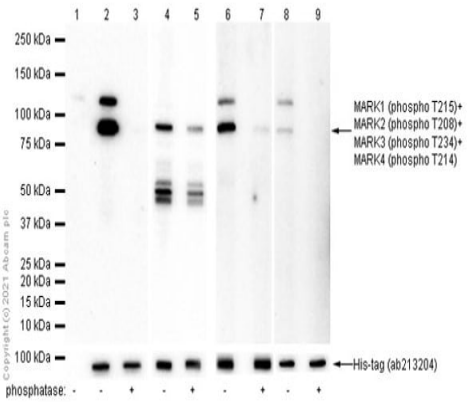
Application notes Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

Target

Cellular localization MARK4: Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, microtubule organizing center. Cytoplasm, cytoskeleton, cilium basal body. Cytoplasm, cytoskeleton, cilium axoneme. Cytoplasm. Localized at the tips of neurite-like processes in differentiated neuroblast cells. Detected in the cytoplasm and neuropil of the

hippocampus. MARK2: Cell membrane. Phosphorylated by PRKCZ in polarized epithelial cells, resulting in an interaction with YWHAZ which promotes relocation from the lateral to the apical membrane. MARK1: Cytoplasm > cytoskeleton. Appears to localize to an intracellular network.

Images



Western blot - Anti-MARK4 (phospho T214) + MARK2 (phospho T208) + MARK3 (phospho T234) + MARK1 (phospho T215) antibody [EPR5463] - BSA and Azide free (ab248152)

Westernblot analysis of **ab126731** at a 1/20 dilution. Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) was used as a scondary antibody at 1/20000 dilution.

Lane 1: HEK-293 (Human embryonic kidney epithelial cell) transfected with an empty vector (vector control), containing a myc-His-tag®, whole cell lysate 15µg

Lane 2: HEK-293 transfected with MARK1 expression vector containing a myc-His-tag®, whole cell lysate 15µg

Lane 3: HEK-293 transfected with MARK1 expression vector containing a myc-His-tag®, whole cell lysate 15µg, then the membrane treated with Alkaline Phosphatase for 1 hour

Lane 4: HEK-293 transfected with MARK2 expression vector containing a myc-His-tag®, whole cell lysate 15µg

Lane 5: HEK-293 transfected with MARK2 expression vector containing a myc-His-tag®, whole cell lysate 15µg, then the membrane treated with Alkaline Phosphatase for 1 hour

Lane 6: HEK-293 transfected with MARK3 expression vector containing a myc-His-tag®, whole cell lysate 15µg

Lane 7: HEK-293 transfected with MARK3 expression vector containing a myc-His-tag®, whole cell lysate 15µg, then the membrane treated with Alkaline Phosphatase for 1 hour

Lane 8: HEK-293 transfected with MARK4 expression vector containing a myc-His-tag®, whole cell lysate 15µg

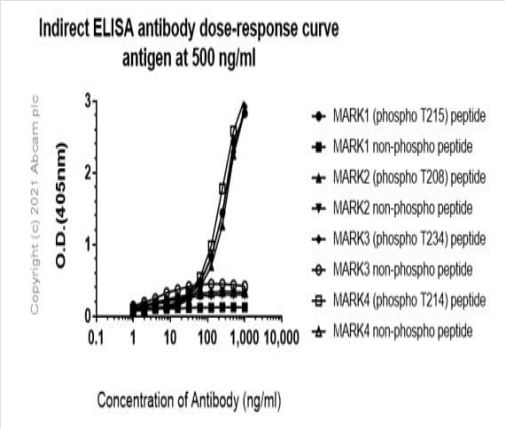
Lane 9: HEK-293 transfected with MARK4 expression vector containing a myc-His-tag®, whole cell lysate 15µg, then the membrane treated with Alkaline Phosphatase for 1 hour

Exposure time:

Lane 1 – 3, 6 - 9: 180 seconds

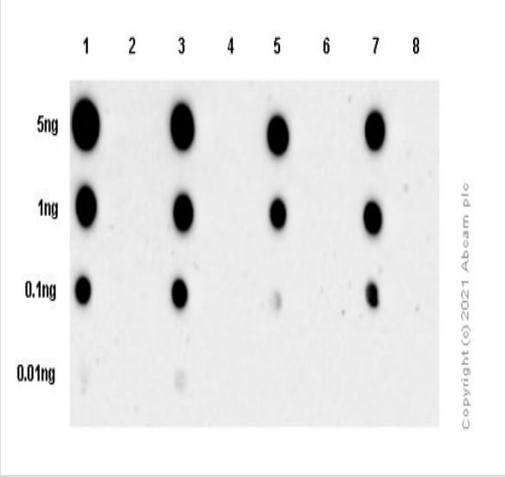
Lane 4 - 5: 7 seconds

Endogenous MARK proteins are observed at ~110 kDa reported by PMID: 9108484 and 16238695



Indirect ELISA - Anti-MARK4 (phospho T214) + MARK2 (phospho T208) + MARK3 (phospho T234) + MARK1 (phospho T215) antibody [EPR5463] - BSA and Azide free (ab248152)

Indirect ELISA antibody dose-response curve using **ab126731** between 0-10000 ng/ml. Antigen concentration of 500 ng/mL. An alkaline phosphatase-conjugated goat anti-rabbit IgG (H+L) (1/2500) was used as the secondary antibody.



Dot Blot - Anti-MARK4 (phospho T214) + MARK2 (phospho T208) + MARK3 (phospho T234) + MARK1 (phospho T215) antibody [EPR5463] - BSA and Azide free (ab248152)

Dot Blot using **ab126731** at a 1/1000 dilution and Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at a 1/100000 dilution

Lane 1: Human MARK1 (T215) phospho peptide

Lane 2: Human MARK1 non-phospho peptide

Lane 3: Human MARK2 (T208) phospho peptide

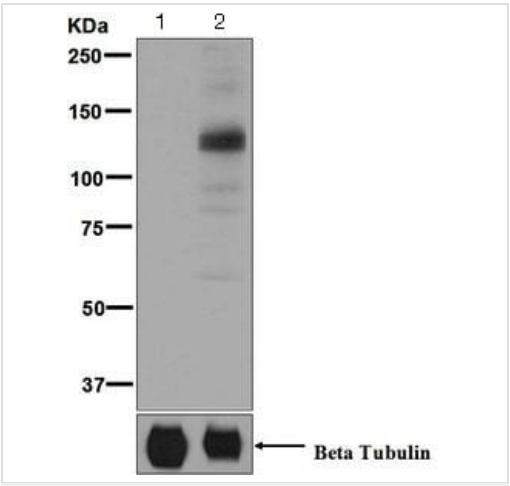
Lane 4: Human MARK2 non-phospho peptide

Lane 5: Human MARK3 (T234) phosphor peptide

Lane 6: Human MARK3 non-phospho peptide

Lane 7: Human MARK4 (T214) phospho peptide

Lane 8: Human MARK4 non-phospho peptide



Western blot - Anti-MARK4 (phospho T214) + MARK2 (phospho T208) + MARK3 (phospho T234) + MARK1 (phospho T215) antibody [EPR5463] - BSA and Azide free (ab248152)

All lanes : Anti-MARK4 (phospho T214) + MARK2 (phospho T208) + MARK3 (phospho T234) + MARK1 (phospho T215) antib (**ab126731**) at 1/10000 dilution

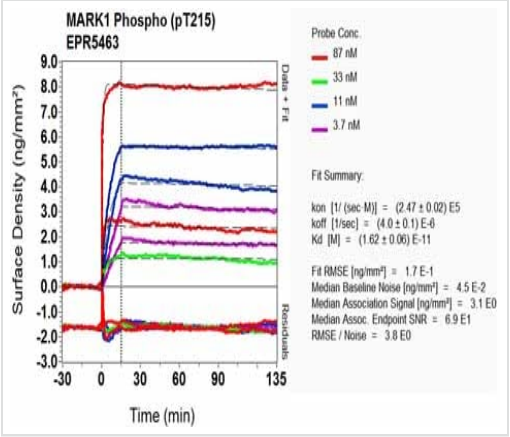
Lane 1 : SH-SY5Y cell lysate, untreated
Lane 2 : SH-SY5Y cell lysate, treated with Okadaic acid and Calyculin A

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 89 kDa

This data was developed using **ab126731**, the same antibody clone in a different buffer formulation.

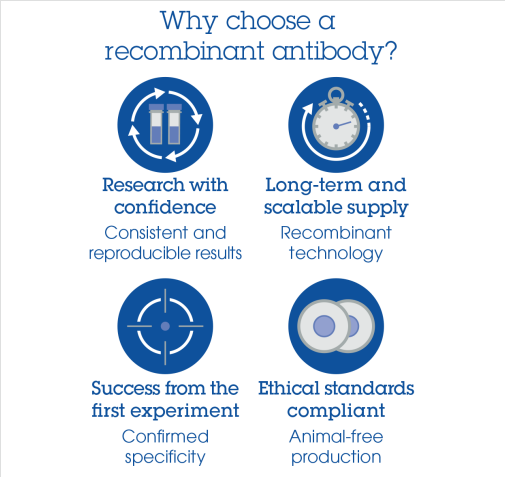


OI-RD Scanning - Anti-MARK4 (phospho T214) + MARK2 (phospho T208) + MARK3 (phospho T234) + MARK1 (phospho T215) antibody [EPR5463] - BSA and Azide free (ab248152)

This data was developed using **ab126731**, the same antibody clone in a different buffer formulation.Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-MARK4 (phospho T214) + MARK2 (phospho T208) + MARK3 (phospho T234) + MARK1 (phospho T215) antibody [EPR5463] - BSA and Azide free (ab248152)

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