abcam

ab92452

Anti-Creatine kinase B type antibody [EPR3927]

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR3927
Purification technique	Affinity purification Protein A
Concentration	0.11 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

Species	Mouse

Dilution info	1/10000 - 1/50000
Notes	-

Species	Rat
Dilution info	1/10000 - 1/50000
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/1000
Notes	Use of an HRP/AP polymerized secondary antibody is recommended for enhanced staining. Perform heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0).

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50 - 1/500
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information CKB

Function	Reversibly catalyzes the transfer of phosphate between ATP and various phosphogens (e.g. creatine phosphate) (PubMed:8186255). Creatine kinase isoenzymes play a central role in energy transduction in tissues with large, fluctuating energy demands, such as skeletal muscle, heart, brain and spermatozoa (Probable). Acts as a key regulator of adaptive thermogenesis as part of the futile creatine cycle: localizes to the mitochondria of thermogenic fat cells and acts by mediating phosphorylation of creatine to initiate a futile cycle of creatine phosphorylation and dephosphorylation (By similarity). During the futile creatine cycle, creatine and N-phosphocreatine are in a futile cycle, which dissipates the high energy charge of N-phosphocreatine as heat without performing any mechanical or chemical work (By similarity).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

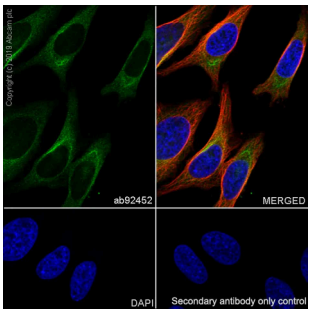
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

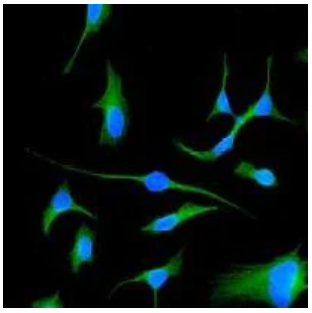
10 product images



Immunocytochemistry/ Immunofluorescence - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

Creatine kinase B type Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Creatine kinase B type antibody

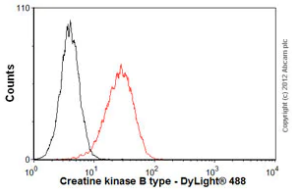
Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Creatine kinase B type with purified ab92452 at 1:50 dilution (2.0 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunocytochemistry/ Immunofluorescence - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

Creatine kinase B type Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Creatine kinase B type antibody

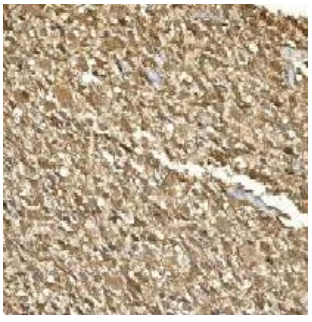
Immunofluorescence analysis of HeLa cells labelled with ab92452 (unpurified) at 1/100 dilution.



Flow Cytometry (Intracellular) - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

Creatine kinase B type Flow Cytometry (Intracellular) staining using rabbit Anti-Creatine kinase B type antibody

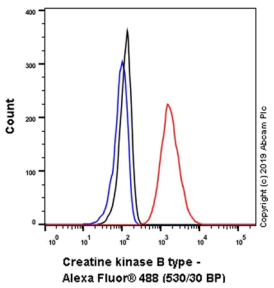
Overlay histogram showing HeLa cells stained with ab92452 (unpurified) (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab92452, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

Creatine kinase B type Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Creatine kinase B type antibody

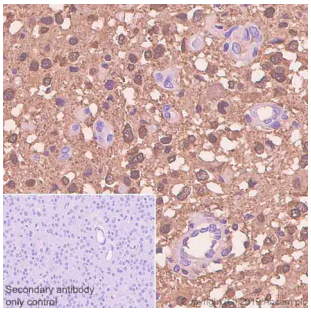
Paraffin embedded Human glioma tissue labelled with ab92452 (unpurified) at 1/100 dilution.



Flow Cytometry (Intracellular) - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

Creatine kinase B type Flow Cytometry (Intracellular) staining using rabbit Anti-Creatine kinase B type antibody

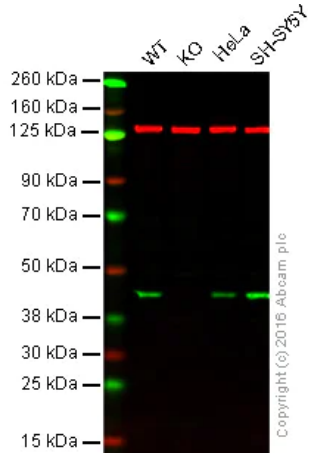
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Creatine kinase B type with purified ab92452 at 1/20 dilution (5 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

Creatine kinase B type Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Creatine kinase B type antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human astrocytoma tissue sections labeling Creatine kinase B type with purified ab92452 at 1/1000 dilution (0.101 µg/ml). Heat mediated antigen retrieval was performed using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



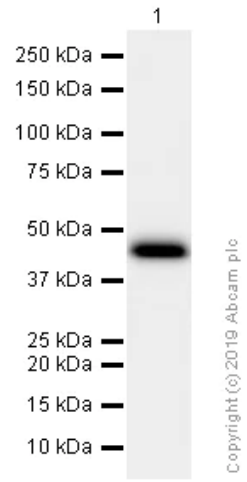
Western blot - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

Creatine kinase B type Western blot staining using rabbit Anti-Creatine kinase B type antibody

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: Creatine kinase B knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: SH-SY5Y cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab92452 observed at 45 kDa. Red - loading control, ab18058, observed at 2X kDa.
ab92452 (unpurified) was shown to specifically react with Creatine kinase B when ProteinX knockout samples were used. Wild-type and Creatine kinase B knockout samples were subjected to SDS-PAGE. ab92452 and ab18058 (loading control to vinculin) were both diluted 1/10 000 and incubated overnight at 4°C. 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 1/10000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

Predicted band size: 43 kDa



Western blot - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

All lanes:
Western blot - Anti-Creatine kinase B type antibody [EPR3927] (ab92452) at 1/10000 dilution

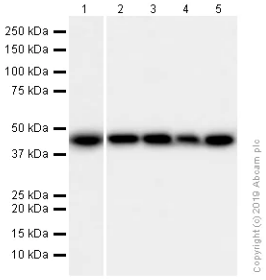
All lanes:
Y79 (Human retinoblastoma retinoblastoma) whole cell lysates at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 43 kDa

Observed band size: 43 kDa



Western blot - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

All lanes:
Western blot - Anti-Creatine kinase B type antibody [EPR3927] (ab92452) at 1/10000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 20 µg

Lane 2:
Mouse cerebellum lysates at 20 µg

Lane 3:
Mouse brain lysates at 20 µg

Lane 4:
C6 (Rat glial tumor glial cell) whole cell lysates at 20 µg

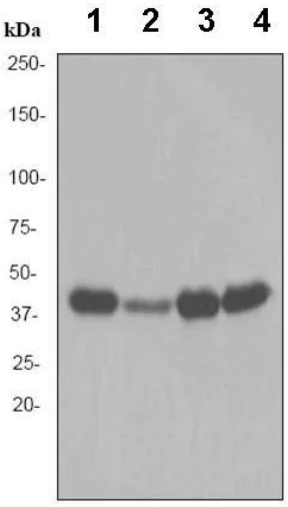
Lane 5:
Rat brain lysates at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 43 kDa

Observed band size: 43 kDa



Western blot - Anti-Creatine kinase B type antibody [EPR3927] (ab92452)

All lanes:
Western blot - Anti-Creatine kinase B type antibody [EPR3927] (ab92452) at 1/10000 dilution

Lane 1:
SHSY-5Y cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

Lane 3:
Y-79 cell lysate at 10 µg

Lane 4:
SW840 cell lysate at 10 µg

Secondary

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

Predicted band size: 43 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.