abcam

Product datasheet

Anti-Creatine Kinase MM antibody [EPR25358-10] ab283683

Recombinant RabMAb

15 Images

Overview

Product name	Anti-Creatine Kinase MM antibody [EPR25358-10]
Description	Rabbit monoclonal [EPR25358-10] to Creatine Kinase MM
Host species	Rabbit
Specificity	ICC/IF and Flow Cyt (Intra) not suitable for mouse.
Tested applications	**Suitable for:** Flow Cyt (Intra), ICC/IF, mIHC, WB, IHC-P, IHC-Fr **Unsuitable for:** IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse heart, Rat heart and Human heart tissue lysates, A-673 and C2C12 treated with 2% horse serum for 6 days, whole cell lysates. IHC-P: Human skeletal muscle tissue, Mouse cardiac muscle tissue and Rat cardiac muscle tissue. IHC-Fr: Mouse cardiac muscle tissue and Rat cardiac muscle tissue. ICC/IF: A-673 cells. Flow Cyt (Intra): A-673 cells. mIHC: Human skeletal muscle tissue.
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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide

	Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR25358-10
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab283683 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
Flow Cyt (Intra)		1/50.
ICC/IF		1/100.
mIHC		Use a concentration of 0.18 µg/ml.
WB		1/1000 - 1/2000. Predicted molecular weight: 43 kDa.
IHC-P		1/5000.
IHC-Fr		1/100.

Application notes Is unsuitable for IP.

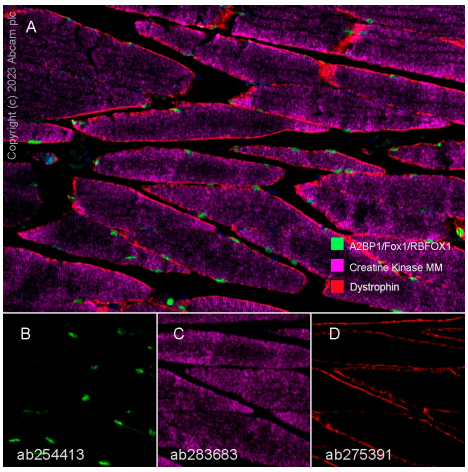
Target

Function Reversibly catalyzes the transfer of phosphate between ATP and various phosphogens (e.g. creatine phosphate). 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.

Sequence similarities Belongs to the ATP:guanido phosphotransferase family.
Contains 1 phosphagen kinase C-terminal domain.
Contains 1 phosphagen kinase N-terminal domain.

Cellular localization Cytoplasm.

Images



Multiplex immunohistochemistry - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

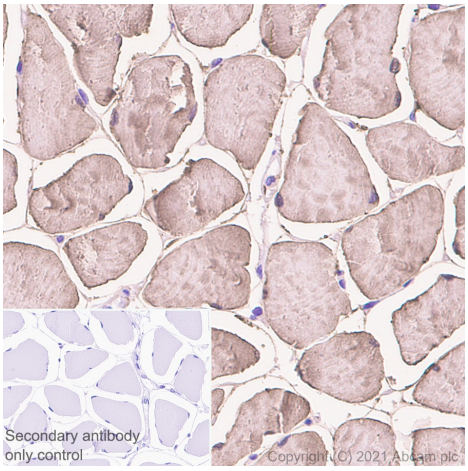
Fluorescence multiplex immunohistochemical analysis of the human skeletal muscle (Formalin/PFA-fixed paraffin-embedded sections).

Panel A: merged staining of anti-Dystrophin (**ab275391**, red; Opal™690), anti-A2BP1/Fox1/RBFOX1 (**ab254413**, green; Opal™520) and anti-Creatine Kinase MM (ab283683, magenta; Opal™570) on human skeletal muscle. Panel B: anti-A2BP1/Fox1/RBFOX1 stained on nucleus of skeletal muscle. Panel C: anti-Creatine Kinase MM stained on cytoplasm of skeletal muscle. Panel D: anti-Dystrophin stained on membrane of skeletal muscle. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

The section was incubated in three rounds of staining: in the order of **ab275391** at 1/500 (2.08 µg/ml) dilution, **ab254413** at 1/2000 (0.239 µg/ml) dilution, and ab283683 at 1/3000 (0.18 µg/ml) dilution for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. DAPI (blue) was used as a nuclear counter stain.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

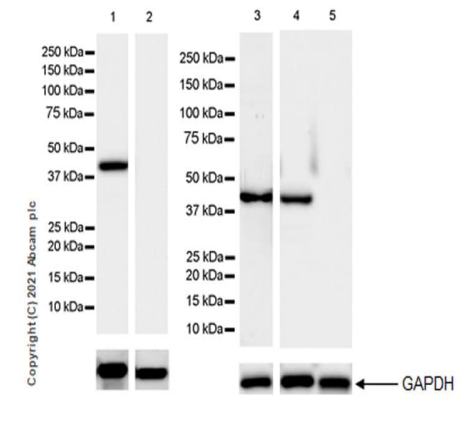


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Immunohistochemical analysis of paraffin-embedded Human skeletal muscle tissue labelling Creatine Kinase MM with ab283683 at 1/5000 (0.108 ug/ml) followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer). Positive staining on human skeletal muscle. The section was incubated with ab283683 at 4 ? overnight. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer).

Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0)



Western blot - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

All lanes : Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683) at 1/2000 dilution

Lane 1 : Mouse heart tissue lysate
Lane 2 : Mouse spleen tissue lysate
Lane 3 : A-673 (Human muscle Ewing's sarcoma) whole cell lysate
Lane 4 : Rat heart tissue lysate
Lane 5 : Rat spleen tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

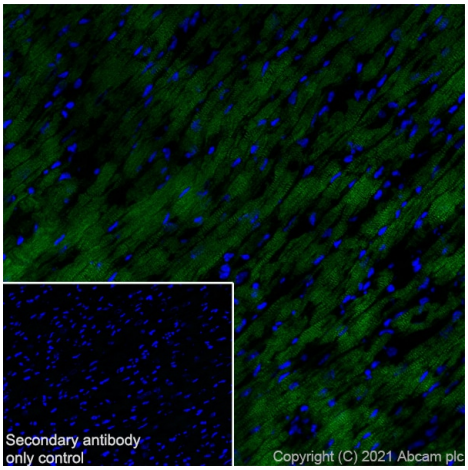
Predicted band size: 43 kDa
Observed band size: 43 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time: Lanes 1-2: 3 seconds, Lane 3: 48 seconds; Lanes 4-5: 6 seconds.

The molecular weight observed is consistent with what has been described in the literature (PMID: 22066028).

No expression was observed in spleen.



Immunohistochemistry (Frozen sections) - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse cardiac muscle (fresh) tissue labeling Creatine Kinase MM with ab283683 at 1/100 (5.39 ug/ml) dilution followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (Green). Cytoplasmic staining on mouse cardiac muscle is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbedat 1/1000 dilution.<\p>

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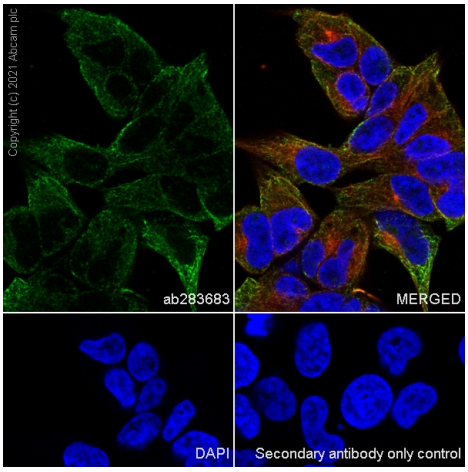
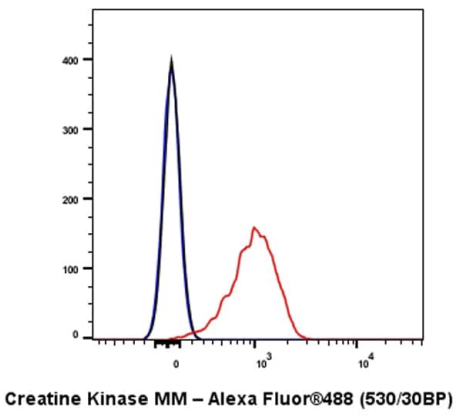


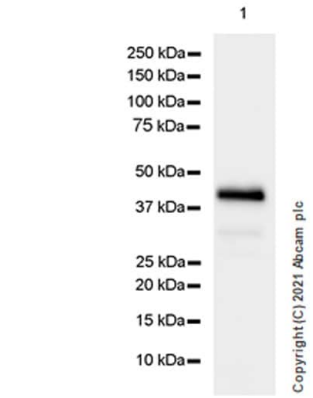
Immunocytochemistry/ Immunofluorescence - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized A-673 cells labelling Creatine Kinase MM with ab283683 at 1/100 (5.39 ug/ml) dilution, followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green). Confocal image showing cytoplasmic staining in A-673 cell line. is observed. **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue).
Secondary antibody only control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Flow Cytometry (Intracellular) - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized A-673 (Human muscle Ewing's Sarcoma) cells labelling Creatine Kinase MM with ab283683 at 1/50 dilution (1ug)/ red (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, **ab150081**) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683) at 1/2000 dilution + Human heart tissue lysate

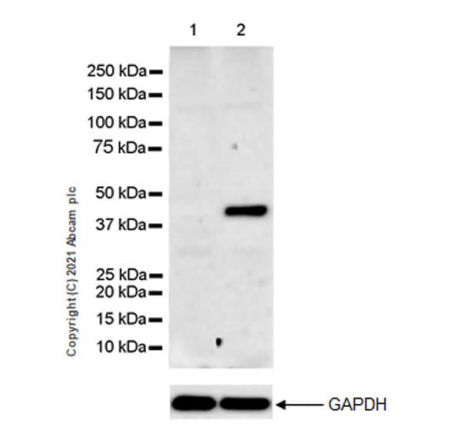
Secondary

Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 43 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time: 1 second



Western blot - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

All lanes : Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683) at 1/1000 dilution

Lane 1 : Untreated C2C12 (mouse myoblasts myoblast) whole cell lysate

Lane 2 : C2C12 treated with 2% horse serum for 6 days whole cell lysate

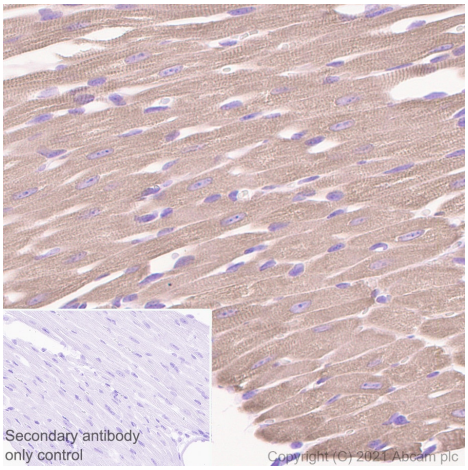
Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/50000 dilution

Predicted band size: 43 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBSTCK protein level is low in undifferentiated myoblasts and becomes strikingly upregulated as differentiation progresses. The expression profile observed is consistent with what has been described in the literature (PMID: 22703875).

Exposure time: 3 minutes

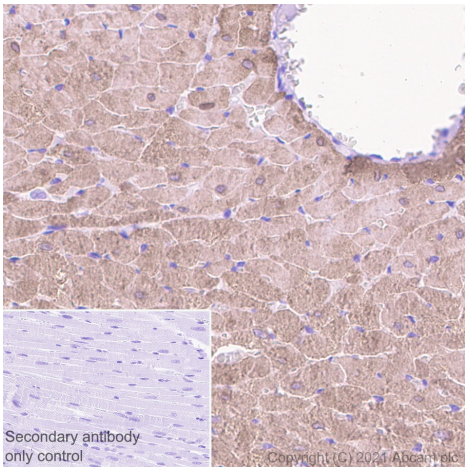


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Immunohistochemical analysis of paraffin-embedded Mouse cardiac muscle tissue labelling Creatine Kinase MM with ab283683 at 1/10000 (0.054 ug/ml) followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer). Cytoplasmic staining on mouse cardiac muscle. The section was incubated with ab283683 at 4 ? overnight. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer).

Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0)

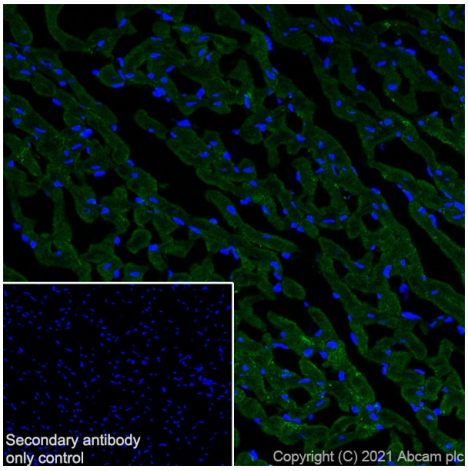


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Immunohistochemical analysis of paraffin-embedded Rat cardiac muscle tissue labelling Creatine Kinase MM with ab283683 at 1/10000 (0.054 ug/ml) followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer). Positive staining on rat cardiac muscle. The section was incubated with ab283683 at 4 ? overnight. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer).

Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0)



Immunohistochemistry (Frozen sections) - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat cardiac muscle (fresh) tissue labeling Creatine Kinase MM with ab283683 at 1/100 (5.39 ug/ml) dilution followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (Green). Cytoplasmic staining on rat cardiac muscle is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbedat 1/1000 dilution.<\p>

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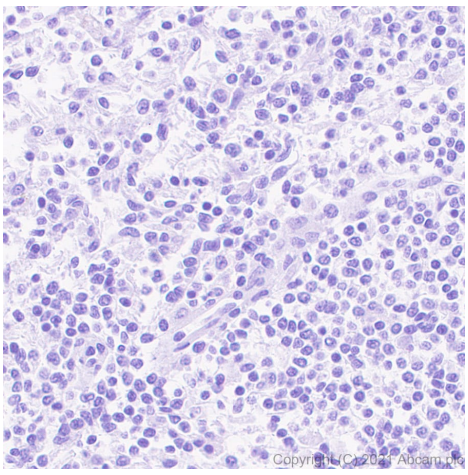
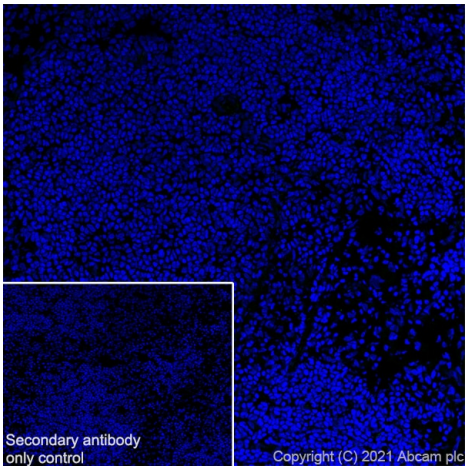


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Immunohistochemical analysis of paraffin-embedded Human spleen tissue labelling Creatine Kinase MM with ab283683 at 1/10000 (0.054 ug/ml) followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer). Negative control: No staining on the human spleen. The section was incubated with ab283683 at 4 ? overnight. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer).

Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0)



Immunohistochemistry (Frozen sections) - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat spleen (fresh) tissue labeling Creatine Kinase MM with ab283683 at 1/100 (5.39 ug/ml) dilution followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (Green). No staining on rat spleen is observed. The nuclear counterstain was DAPI (Blue).
Secondary antibody control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbedat 1/1000 dilution.<\p>

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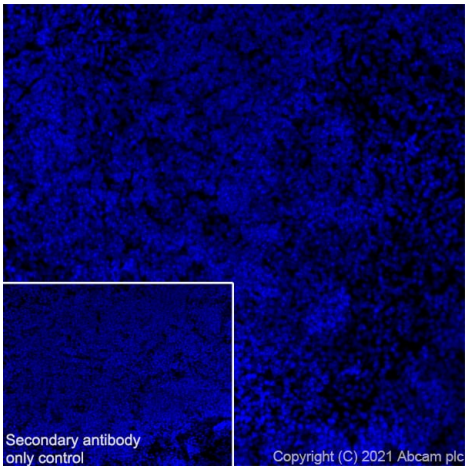

Immunohistochemistry (Frozen sections) - Anti-Creatine Kinase MM antibody [EPR25358-10] (ab283683)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse spleen (fresh) tissue labeling Creatine Kinase MM with ab283683 at 1/100 (5.39 ug/ml) dilution followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (Green). No staining on mouse spleen is observed. The nuclear counterstain was DAPI (Blue).
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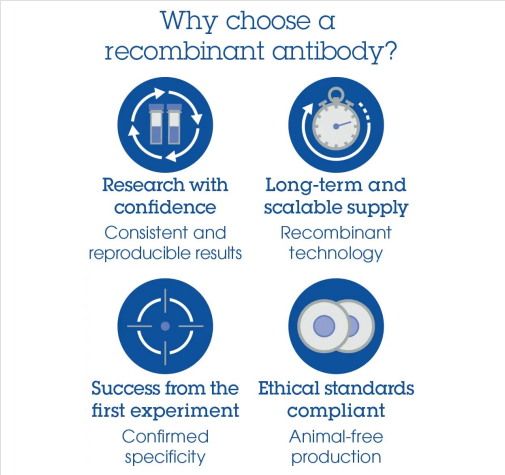

Anti-Creatine Kinase MM antibody [EPR25358-10]

(ab283683)

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