# abcam

### Product datasheet

## Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free ab307725



#### 12 Images

#### Overview

**Product name** Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free

**Description** Rabbit monoclonal [EPR27004-72] to CAPS2 - BSA and Azide free

**Host species** Rabbit

**Tested applications** Suitable for: WB, IHC-Fr

Unsuitable for: Flow Cyt (Intra),ICC/IF,IHC-P or IP

Species reactivity Reacts with: Mouse, Rat, Human

**Immunogen** Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: Human, mouse and rat brain and cerebellum tissue lysate. HEK-293 transfected with a

human CAPS2 (WT) expression vector containing a myc-His-tag®. IHC-Fr: Mouse and rat

cerebellum tissue.

**General notes** ab307725 is the carrier-free version of ab307724

> 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 cellbased 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<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> 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

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#### **Properties**

Form Liquid

**Storage instructions** Shipped at 4°C. Store at +4°C.

Storage buffer pH: 7.20

Constituent: 100% PBS

Carrier free Yes

Purity Protein A purified

Clonality Monoclonal
Clone number EPR27004-72

**Isotype** IgG

#### **Applications**

The Abpromise guarantee Our Abpromise guarantee covers the use of ab307725 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		Use at an assay dependent concentration. Predicted molecular weight: 147 kDa.
IHC-Fr		Use at an assay dependent concentration.

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

## **Target**

Relevance CADPS2 (Ca2+-dependent activator protein for secretion) belongs to the CAPS/Cadps family

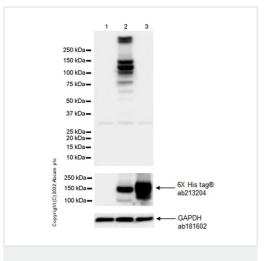
and consists of two members, CAPS1 and CAPS2. Both members play an important role in secretory granule exocytosis. CADPS2 is involved in the release of two neurotrophins, brain-derived neurotrophic factor and neurotrophin-3, from parallel fibers of cerebellar granule cells. CAPS proteins are expressed predominantly in the brain. CADPS2 has been found in various brain regions including the olfactory bulb, cerebrum, hippocampal formation, thalamus, mesencephalic tegmentum, cerebellum, medulla and spinal cord. CADPS2 colocalizes with

proteins related to exocytosis (VAMP and SNAP-25) and endocytosis (Dynamin I) in the cell

soma and processes of the mesencephalic tegmentum and cerebellum.

**Cellular localization** Cytoplasmic. Membrane-associated to vesicles.

### **Images**



Western blot - Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free (ab307725)

**All lanes :** Anti-CAPS2 antibody [EPR27004-72] (**ab307724**) at 1/1000 dilution

Lane 1 : HEK-293 (human embryonic kidney) transfected with an empty vector (vector control) containing a myc-His-tag® whole cell lysate 20  $\mu g$ 

Lane 2: HEK-293 transfected with a human CAPS2 (WT) expression vector containing a myc-His-tag® whole cell lysate 20 µg

Lane 3: HEK-293 transfected with a human CAPS1 (WT) expression vector containing a myc-His-tag® whole cell lysate 20 µg

### Secondary

**All lanes :** Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 147 kDa Observed band size: 150 kDa

Exposure time: 6 seconds

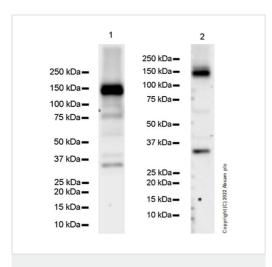
This data was developed using <u>ab307724</u>, the same antibody clone in a different buffer formulation.

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

This antibody does not cross-react with human CAPS1.

In Western blot, anti-His antibody (<u>ab213204</u>) staining at 1/5000 dilution. Anti-GAPDH antibody (<u>ab181602</u>) loading control staining at 1/200000 dilution.

Exposure time: 6 seconds



Western blot - Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free (ab307725)

**All lanes :** Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free (ab307725) at 1/1000 dilution

Lane 1: Human brain tissue lysate 20 µg

Lane 2: Human cerebellum tissue lysate 20 µg

#### **Secondary**

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

Predicted band size: 147 kDa Observed band size: 150 kDa

Exposure time: 150 seconds

This data was developed using <u>ab307724</u>, the same antibody clone in a different buffer formulation.

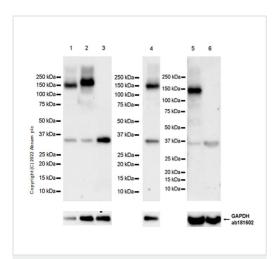
Blocking and diluting buffer and concentration: 5% NFDM/TBST

The identity of the lower MW band at approximately 35 kDa is unknown.

Exposure time:

Lane 1: 103 seconds;

Lane 2: 26 seconds.



Western blot - Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free (ab307725)

**All lanes :** Anti-CAPS2 antibody [EPR27004-72] (**ab307724**) at 1/1000 dilution

Lane 1: Rat brain tissue lysate 20 µg

Lane 2 : Rat cerebellum tissue lysate 20 µg

Lane 3: Rat spleen tissue lysate 20 µg

Lane 4: Mouse brain tissue lysate 20 µg

Lane 5: Mouse cerebellum tissue lysate 20 µg

Lane 6: Mouse spleen tissue lysate 20 µg

## Secondary

All lanes: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated

(ab97051) at 1/20000 dilution

**Predicted band size:** 147 kDa **Observed band size:** 150 kDa

Exposure time: 150 seconds

This data was developed using <u>ab307724</u>, the same antibody clone in a different buffer formulation.

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

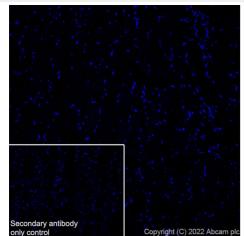
Negative control: spleen (PMID: 14530279, 17428348).

The identity of the lower MW band at approximately 35 kDa is unknown. In Western blot, anti-GAPDH antibody (<u>ab181602</u>) loading control staining at 1/200000 dilution.

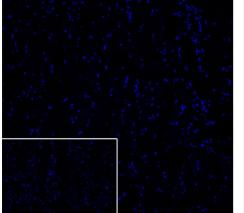
Exposure time:

Lanes 1-4: 37 seconds;

Lanes 5-6: 92 seconds.



Immunohistochemistry (Frozen sections) - Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free (ab307725)



incubated with ab307724 for 60 mins at room temperature. The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This data was developed using **ab307724**, the same antibody

permeabilized frozen rat skeletal muscle (fresh) tissue labeling CAPS2 with <u>ab307724</u> at 1/100 dilution (5.2 µg/ml) followed by

Negative control: confocal image showing no staining on rat

The nuclear counterstain was DAPI (Blue). The section was

ab150081 Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488)

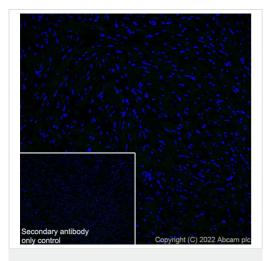
preadsorbed at 1/1000 dilution (2 µg/mL) (Green).

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100

clone in a different buffer formulation.

skeletal muscle (PMID:14530279).

Secondary antibody control: Secondary antibody is ab150081 Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 µg/mL).



Immunohistochemistry (Frozen sections) - Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free (ab307725)

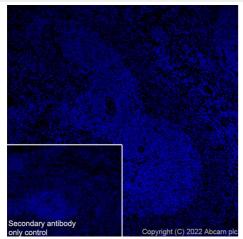
This data was developed using ab307724, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat cardiac muscle (fresh) tissue labeling CAPS2 with **ab307724** at 1/100 dilution (5.2 µg/ml) followed by ab150081 Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 µg/mL) (Green).

**Negative control:** confocal image showing no staining on rat cardiac muscle (PMID: 14530279).

The nuclear counterstain was DAPI (Blue). The section was incubated with ab307724 for 60 mins at room temperature. The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is ab150081 Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 µg/mL).



Immunohistochemistry (Frozen sections) - Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free (ab307725)

This data was developed using <u>ab307724</u>, the same antibody clone in a different buffer formulation.

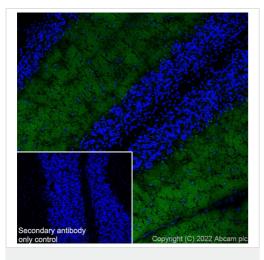
Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat spleen (fresh) tissue labeling CAPS2 with <u>ab307724</u> at 1/100 dilution (5.2 µg/ml) followed by <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000

dilution (2 µg/mL) (Green).

**Negative control:** confocal image showing no staining on rat spleen (PMID: 14530279).

The nuclear counterstain was DAPI (Blue). The section was incubated with <u>ab307724</u> for 60 mins at room temperature. The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 µg/mL).



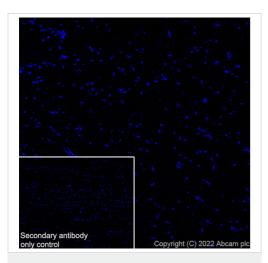
Immunohistochemistry (Frozen sections) - Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free (ab307725)

This data was developed using <u>ab307724</u>, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat cerebellum (fresh) tissue labeling CAPS2 with <u>ab307724</u> at 1/100 dilution (5.2  $\mu$ g/ml) followed by <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2  $\mu$ g/mL) (Green).

Confocal image showing positive staining on rat cerebellum. The nuclear counterstain was DAPI (Blue). The section was incubated with <a href="mailto:ab307724">ab307724</a> for 60 mins at room temperature. The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 µg/mL).



Immunohistochemistry (Frozen sections) - Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free (ab307725)

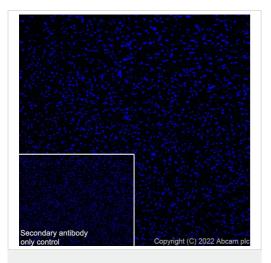
This data was developed using <u>ab307724</u>, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse skeletal muscle (fresh) tissue labeling CAPS2 with <u>ab307724</u> at 1/100 dilution (5.2  $\mu$ g/ml) followed by <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2  $\mu$ g/mL) (Green).

**Negative control:** confocal image showing no staining on mouse skeletal muscle (PMID:14530279).

The nuclear counterstain was DAPI (Blue). The section was incubated with <u>ab307724</u> for 60 mins at room temperature. The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2  $\mu$ g/mL).



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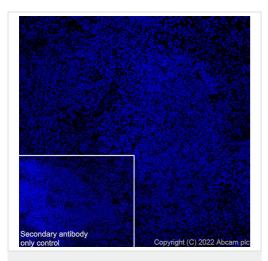
This data was developed using <u>ab307724</u>, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse cardiac muscle (fresh) tissue labeling CAPS2 with <u>ab307724</u> at 1/100 dilution (5.2  $\mu$ g/ml) followed by <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2  $\mu$ g/mL) (Green).

**Negative control:** confocal image showing no staining on mouse cardiac muscle (PMID: 14530279).

The nuclear counterstain was DAPI (Blue). The section was incubated with <u>ab307724</u> for 60 mins at room temperature. The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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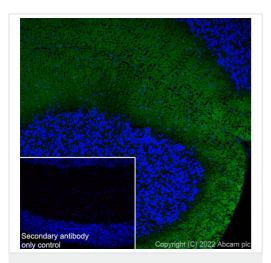
This data was developed using <u>ab307724</u>, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse spleen (fresh) tissue labeling CAPS2 with <u>ab307724</u> at 1/100 dilution (5.2  $\mu$ g/ml) followed by <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2  $\mu$ g/mL) (Green).

**Negative control:** confocal image showing no staining on mouse spleen (PMID: 14530279).

The nuclear counterstain was DAPI (Blue). The section was incubated with <u>ab307724</u> for 60 mins at room temperature. The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 µg/mL).

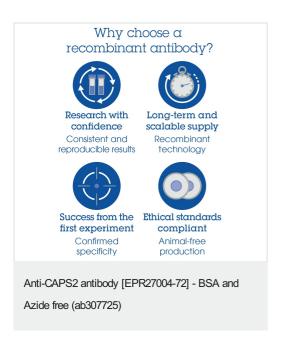


Immunohistochemistry (Frozen sections) - Anti-CAPS2 antibody [EPR27004-72] - BSA and Azide free (ab307725)

This data was developed using <u>ab307724</u>, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen mouse cerebellum (fresh) tissue labeling CAPS2 with <u>ab307724</u> at 1/100 dilution (5.2 μg/ml) followed by <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 μg/mL) (Green). Confocal image showing positive staining on mouse cerebellum. The nuclear counterstain was DAPI (Blue). The section was incubated with <u>ab307724</u> for 60 mins at room temperature. The section was then mounted using Fluoromount®. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Secondary antibody control: Secondary antibody is <u>ab150081</u> Goat Anti-Rabbit lgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2  $\mu$ g/mL).



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