abcam

Product datasheet

# Anti-SERCA1 ATPase antibody [VE121G9] ab2819

リコンビナント

6 Abreviews 26 References 画像数 10

## 製品の概要

| | |
|---|---|
| **製品名** | Anti-SERCA1 ATPase antibody [VE121G9] |
| **製品の詳細** | Mouse monoclonal [VE121G9] to SERCA1 ATPase |
| **由来種** | Mouse |
| **特異性** | Detects Sarcoplasmic or Endoplasmic Reticulum Calcium 1 (SERCA 1) ATPase. |
| **アプリケーション** | **適用あり:** IHC-Fr, WB, IHC-P |
| **種交差性** | **交差種:** Mouse, Human |
| **免疫原** | Full length native protein (purified) corresponding to Rabbit SERCA1 ATPase. Purified rabbit skeletal muscle sarcoplasmic reticulum. |
| **エピトープ** | This antibody recognizes an epitope between amino acid residues 506 and the C-terminus of rabbit skeletal muscle ATPase, a region that is exposed in native sarcoplasmic reticulum. |
| **ポジティブ・コントロール** | WB: Normal mouse and human skeletal muscle IHC-P: Normal mouse and human skeletal muscle IHC-Fr: Normal mouse and human skeletal muscle |
| **特記事項** | This product was switched from a hybridoma to a recombinant production format on 25th October 2021.<br><br>This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**. |

## 製品の特性

| | |
|---|---|
| **製品の状態** | Liquid |
| **保存方法** | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. |
| **バッファー** | pH: 7.20<br>Preservative: 0.01% Sodium azide<br>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA |

| | |
|---|---|
| **精製度** | Protein A purified |
| **ポリ/モノ** | モノクローナル |
| **クローン名** | VE121G9 |
| **アイソタイプ** | IgG1 |

## アプリケーション

**The Abpromise guarantee** Abpromise保証は、次のテスト済みアプリケーションにおけるab2819の使用に適用されます

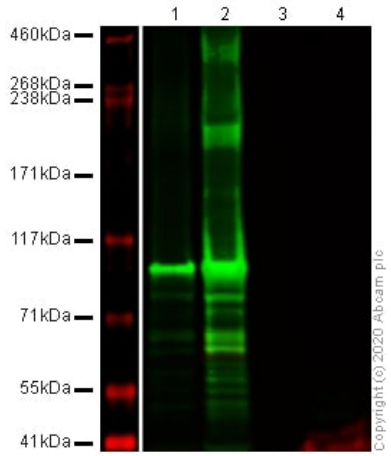
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

| アプリケーション | Abreviews | 特記事項 |
|---|---|---|
| **IHC-Fr** | ★★★★☆ (1) | Use a concentration of 1 µg/ml. |
| **WB** | ★★★★★ (4) | Use a concentration of 1 µg/ml. Detects a band of approximately 99 kDa (predicted molecular weight: 110 kDa). |
| **IHC-P** | | Use a concentration of 1 µg/ml. |

## ターゲット情報

| | |
|---|---|
| **機能** | Key regulator of striated muscle performance by acting as the major Ca(2+) ATPase responsible for the reuptake of cytosolic Ca(2+) into the sarcoplasmic reticulum. Catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen. Contributes to calcium sequestration involved in muscular excitation/contraction. |
| **組織特異性** | Skeletal muscle, fast twitch muscle (type II) fibers. |
| **関連疾患** | Brody myopathy |
| **配列類似性** | Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIA subfamily. |
| **発生段階** | Isoform SERCA1A accounts for more than 99% of SERCA1 isoforms expressed in adult skeletal muscle, while isoform SERCA1B predominates in neo-natal skeletal muscle. |
| **細胞内局在** | Endoplasmic reticulum membrane. Sarcoplasmic reticulum membrane. |

## 画像




Western blot - Anti-SERCA1 ATPase antibody [VE121G9] (ab2819)

**All lanes :** Anti-SERCA1 ATPase antibody [VE121G9] (ab2819) at 1 µg/ml

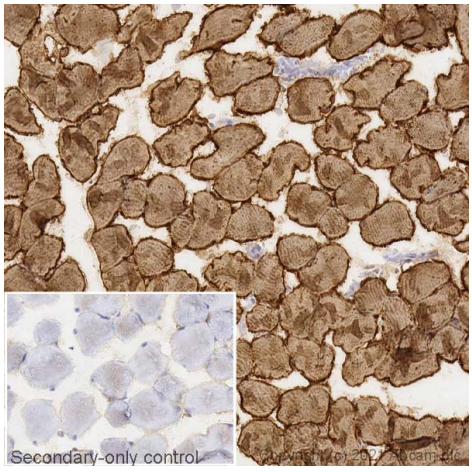
**Lane 1 :** Human Skeletal Muscle tissue lysate
**Lane 2 :** Mouse Skeletal Muscle tissue lysate
**Lane 3 :** Human Brain tissue lysate
**Lane 4 :** Mouse Brain tissue lysate

Lysates/proteins at 20 µg per lane.

**Secondary**
**All lanes :** Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (**ab216772**) at 1/20000 dilution

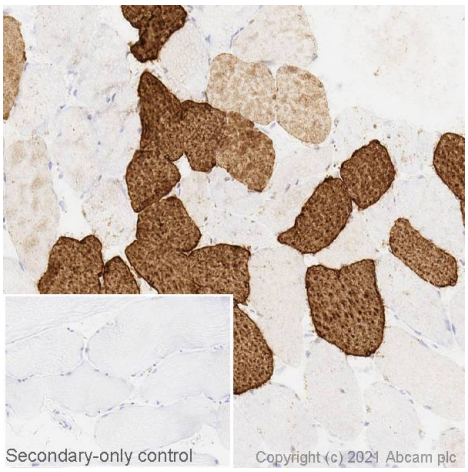
**Predicted band size:** 110 kDa
**Observed band size:** 110 kDa

This blot was produced using 3-8% Tris-Acetate gel under the TA buffer system. The gel was run at 150V for 60 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was blocked for an hour using 3% milk before ab2819 was incubated overnight at 4°C at a 1µg/ml concentration. Antibody binding was detected using Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (**ab216772**) secondary antibody at 1/20000 dilution for 1 hour at room temperature before imaging.



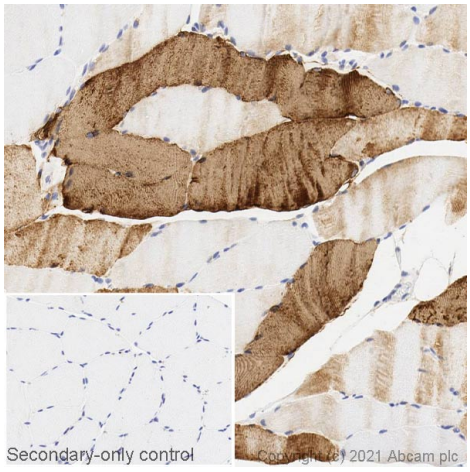

Immunohistochemistry (Frozen sections) - Anti-SERCA1 ATPase antibody [VE121G9] (ab2819)

IHC image of SERCA1 ATPase staining in a section of frozen normal mouse skeletal muscle performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab2819, 1µg/ml for 15 mins at room temperature and then **ab125913**, Goat anti-Mouse IgG1 at 1.5ugml was added for 15 mins at room temperature. This was detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.




Immunohistochemistry (Frozen sections) - Anti-SERCA1 ATPase antibody [VE121G9] (ab2819)

IHC image of SERCA1 ATPase staining in a section of frozen normal human skeletal muscle* performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab2819, 1µg/ml for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.
*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

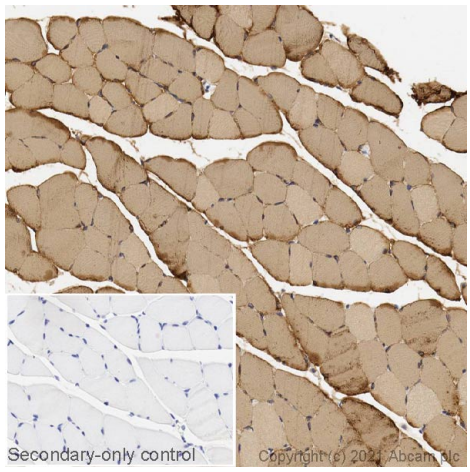



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SERCA1 ATPase antibody [VE121G9] (ab2819)

IHC image of SERCA1 ATPase staining in a section of formalin-fixed paraffin-embedded normal human skeletal muscle* performed on a Leica BOND™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab2819, 1ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

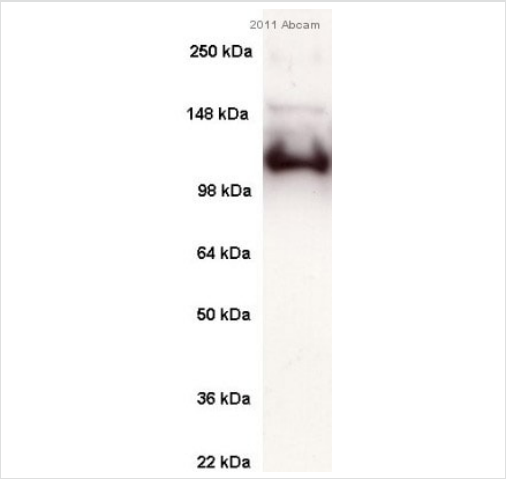
*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SERCA1 ATPase antibody [VE121G9] (ab2819)

IHC image of SERCA1 ATPase staining in a section of formalin-fixed paraffin-embedded normal mouse skeletal muscle performed on a Leica BOND™ system using the standard protocol. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab2819, 1ug/ml, for 15 mins at room temperature and then **ab125913**, Goat anti-Mouse IgG1 at 1.5ugml was added for 15 mins at room temperature. This was detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.




Western blot - Anti-SERCA1 ATPase antibody [VE121G9] (ab2819)

This image is courtesy of an anonymous Abreview

Anti-SERCA1 ATPase antibody [VE121G9] (ab2819) at 1/1000 dilution (in PBS tweeb 0.05% for 1 hour at 22°C) + Whole tissue lysate of human neck muscle. at 20 µg

**Secondary**

An HRP-conjugated sheep anti-mouse polyclonal at 1/4000 dilution

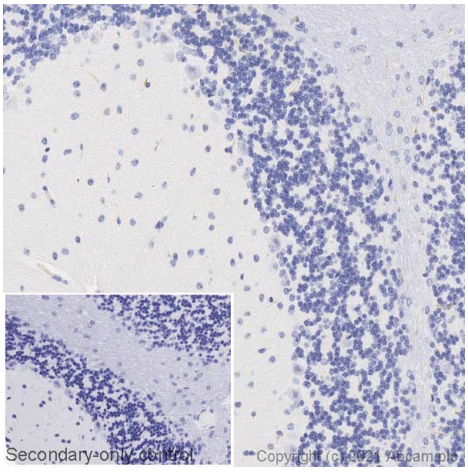
Developed using the ECL technique.

**Predicted band size:** 110 kDa
**Observed band size:** 110 kDa

**Exposure time:** 5 minutes

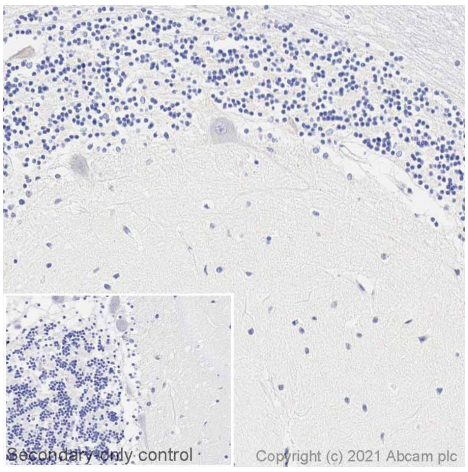
**Blocking Step:** 5% milk for 16 hours at 22°C

This image was generated from the Hybridoma version.




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SERCA1 ATPase antibody [VE121G9] (ab2819)

Negative control image: IHC image of SERCA1 ATPase staining in a section of formalin-fixed paraffin-embedded normal mouse cerebellum performed on a Leica BOND™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab2819, 1ug/ml, for 15 mins at room temperature and then **ab125913**, Goat anti-Mouse IgG1 at 1.5ugml was added for 15 mins at room temperature. This was detected using an HRP conjugated compact polymer system DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

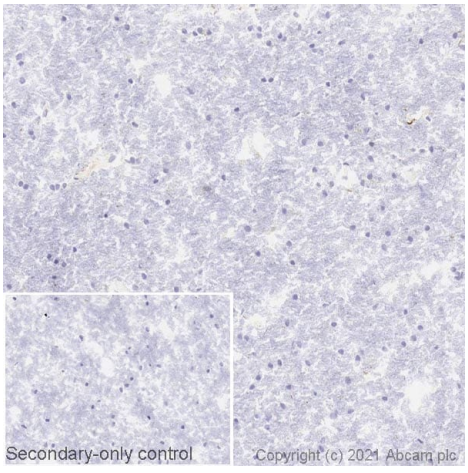



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SERCA1 ATPase antibody [VE121G9] (ab2819)

Negative control image: IHC image of SERCA1 ATPase staining in a section of formalin-fixed paraffin-embedded normal human cerebellum* performed on a Leica BOND™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab2819, 1ug/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

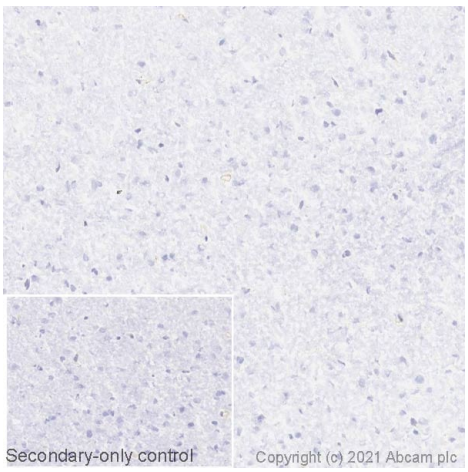



Immunohistochemistry (Frozen sections) - Anti-SERCA1 ATPase antibody [VE121G9] (ab2819)

Negative control image: IHC image of SERCA1 ATPase staining in a section of frozen normal human cerebral cortex* performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab2819, 1ug/ml for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre




Immunohistochemistry (Frozen sections) - Anti-SERCA1 ATPase antibody [VE121G9] (ab2819)

Negative control image: IHC image of SERCA1 ATPase staining in a section of frozen normal mouse cerebral cortex performed on a Leica BOND™ system using the standard protocol. The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab2819, 1ug/ml for 15 mins at room temperature and then **ab125913**, Goat anti-Mouse IgG1 at 1.5ugml was added for 15 mins at room temperature. This was detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



## Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.co.jp/abpromise** or contact our technical team.

## Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors