abcam

Product datasheet

# Anti-Glucose Transporter GLUT4 antibody ab33780

12 Abreviews 43 References 8 图像

## 概述

| | |
|---|---|
| **产品名称** | Anti-Glucose Transporter GLUT4抗体 |
| **描述** | 兔多克隆抗体to Glucose Transporter GLUT4 |
| **宿主** | Rabbit |
| **特异性** | From Jan 2024, QC testing of replenishment batches of this polyclonal changed. All tested and expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch, please contact our Scientific Support who will be happy to help. |
| **经测试应用** | **适用于:** WB, IHC-P, ICC/IF |
| **种属反应性** | **与反应:** Mouse, Human, Recombinant fragment<br>**预测可用于:** Rat, Sheep, Rabbit, Goat, Horse, Cow |
| **免疫原** | Synthetic peptide conjugated to KLH derived from within residues 450 to the C-terminus of Human Glucose Transporter GLUT4.参阅Abcam的专有抗源政策(Peptide available as **ab34088**.) |
| **阳性对照** | ICC: ioSkeletal Myocytes - Human iPSC-Derived Skeletal Myocytes and HeLa cells. WB: Partial tagged recombinant protein to GLUT4; Human heart and skeletal muscle tissue lysates. IHC-P: Human and mouse heart tissue; Rat skeletal muscle tissues. ICC: HeLa cells. |
| **常规说明** | The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.<br>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As |

## 性能

| | |
|---|---|
| **形式** | Liquid |
| **存放说明** | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. |
| **存储溶液** | pH: 7.40<br>Preservative: 0.02% Sodium azide<br>Constituent: PBS |

| | |
|---|---|
| | Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help. |
| **纯度** | Immunogen affinity purified |
| **克隆** | **多克隆** |
| **同种型** | IgG |

## 应用

**The Abpromise guarantee** **Abpromise™承诺保证使用ab33780于以下的经测试应用**

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

| 应用 | Ab评论 | 说明 |
|---|---|---|
| **WB** | ★★★☆☆ (5) | Use a concentration of 1 µg/ml. Predicted molecular weight: 55 kDa. |
| **IHC-P** | ★★★★★ (3) | Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |
| **ICC/IF** | | Use a concentration of 1 - 5 µg/ml. |

## 靶标

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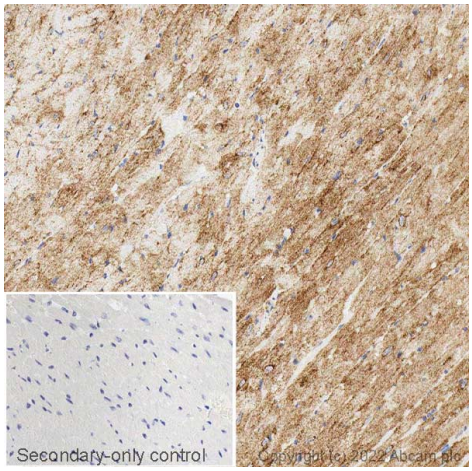
|---|---|
| **功能** | Insulin-regulated facilitative glucose transporter. |
| **组织特异性** | Skeletal and cardiac muscles; brown and white fat. |
| **疾病相关** | Diabetes mellitus, non-insulin-dependent |
| **序列相似性** | Belongs to the major facilitator superfamily. Sugar transporter (TC 2.A.1.1) family. Glucose transporter subfamily. |
| **翻译后修饰** | Sumoylated. |
| **细胞定位** | Cell membrane. Endomembrane system. Cytoplasm, perinuclear region. Localizes primarily to the perinuclear region, undergoing continued recycling to the plasma membrane where it is rapidly reinternalized. The dileucine internalization motif is critical for intracellular sequestration. |

## 图片

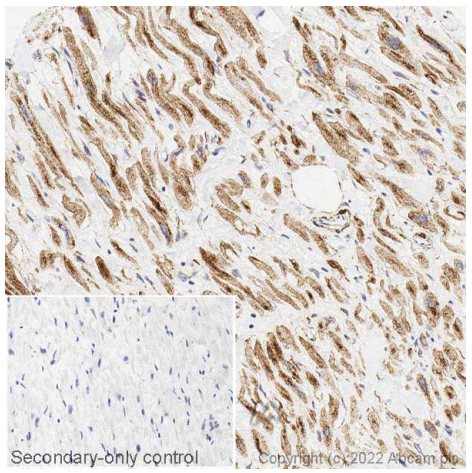



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucose Transporter GLUT4 antibody (ab33780)

IHC image of Glucose Transporter GLUT4 staining in a section of formalin-fixed paraffin-embedded normal mouse heart 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 ab33780, 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.

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

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-Glucose Transporter GLUT4 antibody (ab33780)

IHC image of Glucose Transporter GLUT4 staining in a section of formalin-fixed paraffin-embedded normal human heart* 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 ab33780, 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.

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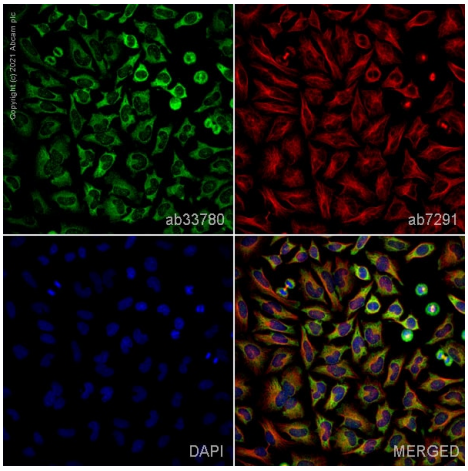
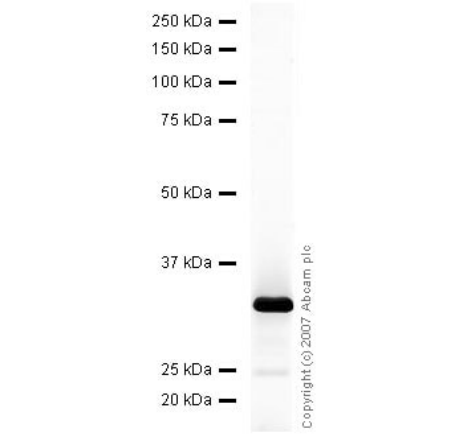



Immunocytochemistry/ Immunofluorescence - Anti-Glucose Transporter GLUT4 antibody (ab33780)

ab33780 staining Glucose Transporter GLUT4 in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab33780 at 1µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.




Western blot - Anti-Glucose Transporter GLUT4 antibody (ab33780)

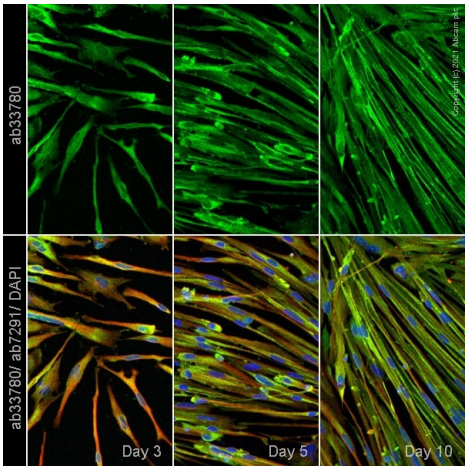
Anti-Glucose Transporter GLUT4 antibody (ab33780) at 1 µg/ml + Partial tagged recombinant protein to GLUT4 at 0.1 µg

**Secondary**

IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

**Predicted band size:** 55 kDa
**Observed band size:** 30 kDa

ab33780 gave a positive signal against the partial recombinant GLUT4 protein which has an expected molecular weight of 30 kDa.

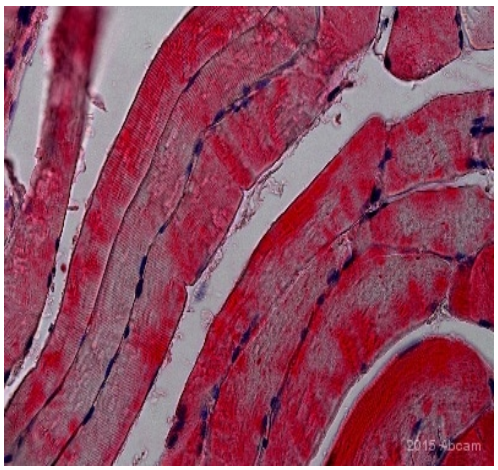



Immunocytochemistry/ Immunofluorescence - Anti-Glucose Transporter GLUT4 antibody (ab33780)

Immunofluorescence staining of GLUT4 using ab33780 in ioSkeletal Myocytes - Human iPSC-Derived Skeletal Myocytes (**ab277612**), which were differentiated for 3 (left panel), 5 (middle panel) and 10 days (right panel) post induction.

The cells were fixed with 100% MeOH (5 min) and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab33780 at 5 µg/mL and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin, at 1/1000 dilution. Cells were then incubated with **ab150081**, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

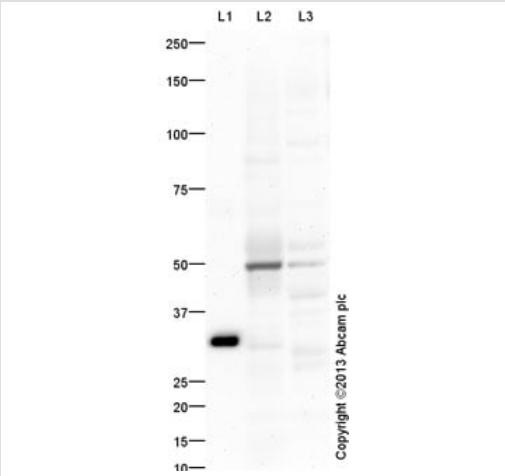
Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown. Gamma is adjusted to 1.5 in all channels.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucose Transporter GLUT4 antibody (ab33780)

Image is courtesy of an Anonymous AbReview.

Immunohistochemical of PFA-fixed paraffin-embedded rat skeletal muscle skeletal tissue, labelling glucose transporter GLUT4 with ab33780 at a dilution of 1/200 incubated for 13 hours at 4°C in 1% BSA in TBS. Antigen retrival was with Tris-EDTA at pH 9.0 (heat mediated). Blocking was with 3% BSA incubated for 1 hour at 37°C. Secondary was a Goat anti-rabbit polyclonal Akaline Phosphotase conjugate at 1/200.




Western blot - Anti-Glucose Transporter GLUT4 antibody (ab33780)

**All lanes :** Anti-Glucose Transporter GLUT4 antibody (ab33780) at 1 µg/ml

**Lane 1 :** Recombinant Protein GLUT4 (Partial, Tagged) at 0.1 µg
**Lane 2 :** Heart (Human) Tissue Lysate at 20 µg
**Lane 3 :** Skeletal Muscle (Human) Tissue Lysate at 20 µg

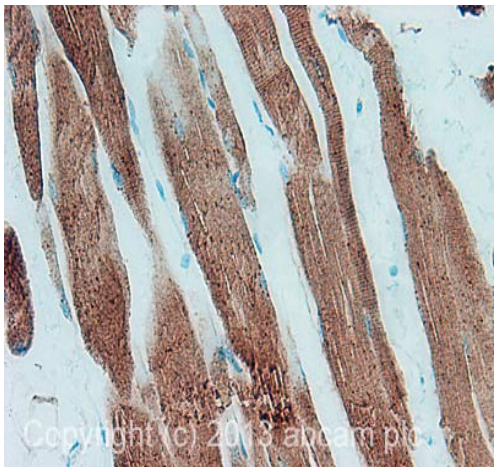
**Secondary**
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 55 kDa
**Observed band size:** 50 kDa

**Exposure time:** 4 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Glucose Transporter GLUT4 antibody (ab33780)

IHC image of Glucose Transporter GLUT4 staining in Mouse normal skeletal muscle formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol B. 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 ab33780, 5µg/ml, for 15 mins at room temperature. A Goat anti-Rabbit biotinylated secondary antibody was used to detect the primary, and visualized using an HRP conjugated ABC system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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.



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