# abcam

## Product datasheet

# Anti-GAD65 + GAD67 antibody [EPR19366] ab183999

יעלאעבע RabMAb

★★★★★ 4 Abreviews 8 References 画像数 13

#### 製品の概要

製品名 Anti-GAD65 + GAD67 antibody [EPR19366]

製品の詳細 Rabbit monoclonal [EPR19366] to GAD65 + GAD67

由来種 Rahhit

アプリケーション 適用あり: IP, IHC-P, IHC-Fr, WB, ICC/IF

種交差性 交差種: Mouse, Rat, Human

交差が予測される動物種: Common marmoset 4

免疫原 Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

ポジティブ・コントロール WB: Mouse GAD67 and GAD65 fragment recombinant proteins; Human, mouse and rat

> cerebellum lysates; C6 whole cell lysate; Mouse and rat brain lysates. IHC-P: Mouse cerebellum and pancreas tissues; Rat cerebellum and pancreas tissues. IHC-Fr: Mouse hippocampus tissue.

ICC/IF: Mouse primary neuron cells

特記事項 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**.

#### 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 long

term. Avoid freeze / thaw cycle.

バッファー

Preservative: 0.01% Sodium azide

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** EPR19366

アイソタイプ IgG

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab183999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
IP		1/40.
IHC-P	****(3)	1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr	*** <u>*</u>	1/2500.
WB		1/1000. Detects a band of approximately 65, 67 kDa (predicted molecular weight: 65, 67 kDa).
ICC/IF		1/100.

#### ターゲット情報

**関連性** This gene encodes one of several forms of glutamic acid decarboxylase, identified as a major

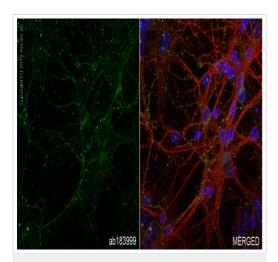
autoantigen in insulin-dependent diabetes. The enzyme encoded is responsible for catalyzing the production of gamma aminobutyric acid from L glutamic acid. A pathogenic role for this enzyme has been identified in the human pancreas since it has been identified as an autoantibody and an autoreactive T cell target in insulin dependent diabetes. This gene may also play a role in the stiff

man syndrome.

細胞内局在 Cytoplasm; cytosol. Associated to cytoplasmic vesicles. In neurons, cytosolic leaflet of Golgi

membranes and presynaptic clusters.

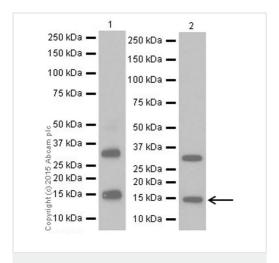
#### 画像



Immunocytochemistry/ Immunofluorescence - Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999)

Immunocytochemistry/ Immunofluorescence analysis of mouse primary neuron cells labeling GAD65 + GAD67 with purified ab183999 at 1/100 (10 μg/mL). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with <u>ab11267</u> Anti-MAP2 antibody [HM-2]; <u>ab150120</u> Goat Anti-Mouse IgG H&L (Alexa Fluor<sup>®</sup> 594). Goat anti rabbit IgG (Alexa Fluor<sup>®</sup> 488, <u>ab150077</u>) 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.

Confocal scanning Z step was set as 0.3 µm followed by image processing with maximum Z projection.



Western blot - Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999)

**All lanes :** Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999) at 1/1000 dilution

**Lane 1 :** Mouse GAD67 fragment recombinant protein **Lane 2 :** Mouse GAD65 fragment recombinant protein

Lysates/proteins at 0.01 µg per lane.

#### Secondary

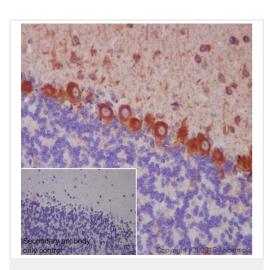
**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution

Predicted band size: 65, 67 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1: 1 second; Lane 2: 15 seconds.

Mouse GAD67 fragment recombinant protein contain aa468-592 with a His-Tag®. Mouse GAD65 fragment recombinant protein contain aa460-584 with a His-Tag®. These two fragment recombinant proteins were made in-house. The ~30 kDa band represents doublets of the recombinant fragments.

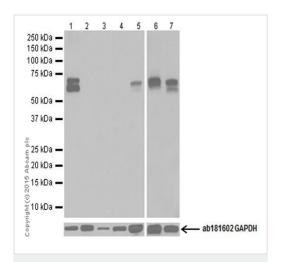


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999)

Immunohistochemical analysis of paraffin-embedded Mouse cerebellum tissue labeling GAD65 + GAD67 with ab183999 at 1/1000 dilution, followed by Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on mouse cerebellum is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is <u>ab97051</u> at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999)

**All lanes :** Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999) at 1/1000 dilution

Lane 1: Human cerebellum lysate

Lane 2: Mouse skin lysate

Lane 3: Mouse lung lysate

Lane 4: Neuro-2a (Mouse neuroblastoma cell line) whole cell

lysate

Lane 5: C6 (Rat glial tumor cell line) whole cell lysate

Lane 6 : Mouse cerebellum lysate

Lane 7 : Rat cerebellum lysate

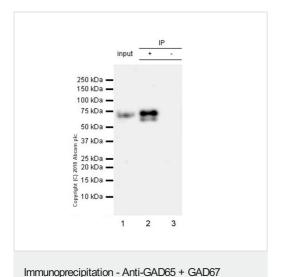
Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution

**Predicted band size:** 65, 67 kDa **Observed band size:** 65,67 kDa

Exposure time: Lane 1-5: 3 minutes; Lane 6 and 7: 2 seconds.



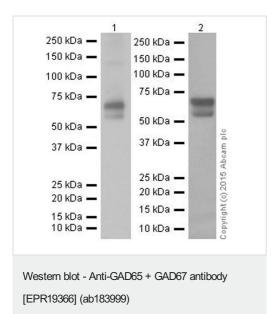
antibody [EPR19366] (ab183999)

Ab183999 Immunoprecipitating GAD65 + GAD67 in Human cerebellum lysate. 10µg of cell lysate was incubated with primary antibody 1/40. For western blotting Ab183999 (1/1000) was used to confirm successful immunoprecipation. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/5000.

Lane 1 (Input): Human cerebellum lysate 10µg

Lane 2 (+): Human cerebellum lysate with Ab183999, 1/40
Lane 3 (-): Rabbit monoclonal lgG (ab172730) instead of

ab183999 in Human cerebellum lysate



**Lane 1**: Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999) at 1/5000 dilution

**Lane 2**: Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999) at 1/1000 dilution

Lane 1 : Mouse brain lysate

Lane 2 : Rat brain lysate

Lysates/proteins at 10 µg per lane.

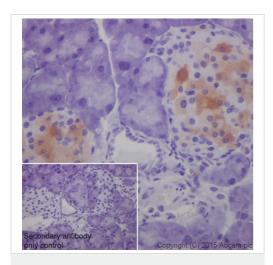
#### **Secondary**

**All lanes :** Goat Anti-Rabbit  $\lg G \ H\&L \ (HRP) \ (\underline{ab97051})$  at 1/100000 dilution

**Predicted band size:** 65, 67 kDa **Observed band size:** 65,67 kDa

Exposure time: 2 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

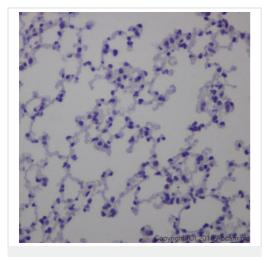


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999)

Immunohistochemical analysis of paraffin-embedded Mouse pancreas tissue labeling GAD65 + GAD67 with ab183999 at 1/1000 dilution, followed by Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on mouse pancreas islets is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is <a href="mailto:ab97051">ab97051</a> at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

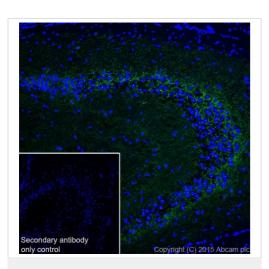


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999)

Immunohistochemical analysis of paraffin-embedded Mouse lung tissue labeling GAD65 + GAD67 with ab183999 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative on mouse lung. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH

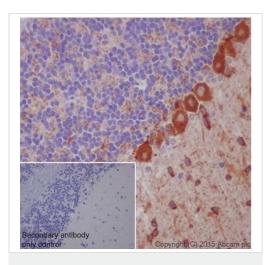
9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Frozen sections) - Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999)

Immunohistochemical analysis of 4% paraformaldehyde fixed, 0.2% Triton X-100 permealized frozen section of Mouse hippocampus tissue labeling GAD65 + GAD67 with ab183999 at 1/250 dilution, followed by Goat anti-rabbit lgG (Alexa Fluor<sup>®</sup> 488) secondary (ab150077) at 1/1000 dilution (green). The result showed mainly cytoplasmic staining on mouse hippocampus. The nuclear counterstain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is <u>ab150077</u> at 1/1000 dilution.

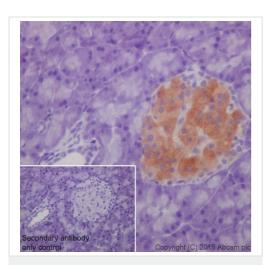


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999)

Immunohistochemical analysis of paraffin-embedded Rat cerebellum tissue labeling GAD65 + GAD67 with ab183999 at 1/1000 dilution, followed by Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on rat cerebellum is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab97051** at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

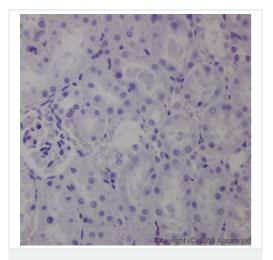


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999)

Immunohistochemical analysis of paraffin-embedded Rat pancreas tissue labeling GAD65 + GAD67 with ab183999 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Cytoplasm staining on rat pancreas islet is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab97051** at 1/500 dilution.

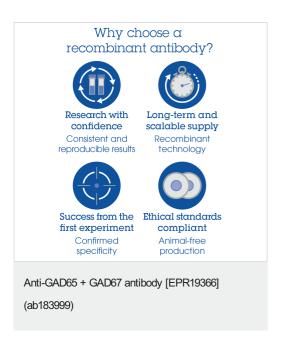
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-GAD65 + GAD67 antibody [EPR19366] (ab183999)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling GAD65 + GAD67 with ab183999 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution. Negative on rat kidney. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



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