

## Product datasheet

# Anti-CACNA1A antibody ab32642

★★★★★ 1 Abreviews 2 References 画像数 3

### 製品の概要

製品名	Anti-CACNA1A antibody
製品の詳細	Rabbit polyclonal to CACNA1A
由来種	Rabbit
アプリケーション	適用あり: WB, IHC-FoFr
種交差性	交差種: Mouse, Rat 交差が予測される動物種: Rabbit, Cow, Human
免疫原	Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Rat CACNA1A. Immunogen の所有権に関して (Peptide available as <a href="#">ab32641</a> .)
ポジティブ・コントロール	This antibody gave a positive signal in the following lysates: Rat brain cerebellum, E16 rat brain, E18 rat brain, E16 mouse brain.

### 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 or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

### アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab32642** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
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WB Use at an assay dependent concentration. Detects a band of approximately 190 kDa (predicted molecular weight: 268 kDa). Can be blocked with [Rat CACNA1A peptide \(ab32641\)](#). PubMed: 21293071  
CACNA1a has a major form with an apparent molecular mass of 190 kDa and a minor, full-length form with an apparent molecular mass of 220 kDa. [PMID:7673157]

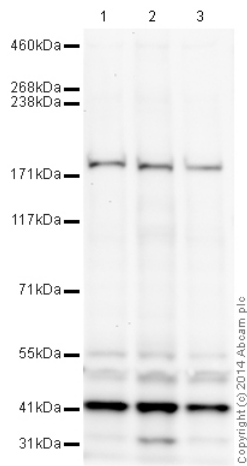
IHC- FoFr  1/100.

## ターゲット情報

**関連性** Cav2.1 is a voltage-sensitive calcium channels (VSCC) which belongs to the calcium channel alpha-1 subunit family. Cav2.1 mediates the entry of calcium ions into excitable cells and is also involved in a variety of calcium-dependent processes, including muscle contraction, hormone or neurotransmitter release, gene expression, cell motility, cell division and cell death. Cav2.1 (isoform alpha-1A) gives rise to P and/or Q-type calcium currents. Voltage-dependent calcium channels are multisubunit complexes, consisting of alpha-1, alpha-2, beta and delta subunits in a 1:1:1:1 ratio. The channel activity is directed by the pore-forming and voltage-sensitive alpha-1 subunit. In many cases, this subunit is sufficient to generate voltage-sensitive calcium channel activity. The auxiliary subunits beta and alpha-2/delta linked by a disulfide bridge regulate the channel activity.

**細胞内局在** Cell Membrane

## 画像



Western blot - Anti-CACNA1A antibody (ab32642)

**All lanes :** Anti-CACNA1A antibody  
(ab32642) at 1 µg/ml

**Lane 1 :** E16 Rat Embryo Brain - Tissue  
Lysate

**Lane 2 :** E16 Mouse Embryo Brain - Tissue  
Lysate

**Lane 3 :** E18 Rat Embryo Brain - Tissue  
Lysate

Lysates/proteins at 10 µg per lane.

### Secondary

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

Developed using the ECL technique.

Performed under reducing conditions.

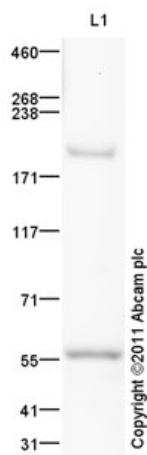
**Predicted band size:** 268 kDa

**Observed band size:** 190 kDa

**Additional bands at:** 42 kDa. We are unsure  
as to the identity of these extra bands.

**Exposure time:** 8 minutes

This blot was produced using a 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 then blocked for an hour using 5% Bovine Serum Albumin before being incubated with ab32642 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution.



Western blot - Anti-CACNA1A antibody (ab32642)

Anti-CACNA1A antibody (ab32642) at 1  $\mu\text{g/ml}$  + Cerebellum Rat Tissue Lysate at 20  $\mu\text{g}$

### Secondary

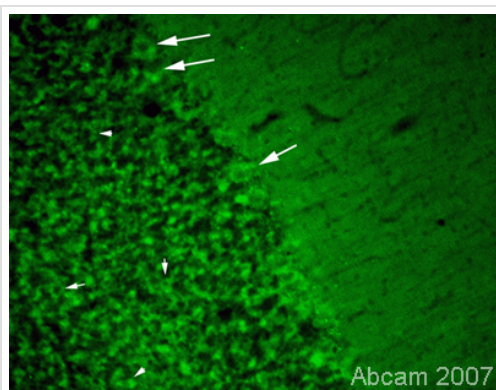
Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

**Predicted band size:** 268 kDa

**Observed band size:** 190 kDa

**Additional bands at:** 56 kDa. We are unsure as to the identity of these extra bands.

Abcam recommends using milk as the blocking agent. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.



Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-CACNA1A antibody (ab32642)

This image is courtesy of Sophie Pezet, Laboratoire de Neurobiologie, Paris, France

Immunofluorescent staining for CACNA1A using Rabbit polyclonal to CACNA1A (ab32642) in rat Purkinje (arrows) and granular (arrow heads) cells, of the rat cerebellum. Protocol details: Rats were intracardially perfused with 4% paraformaldehyde. Whole brain tissue was post-fixed overnight in the same fixative, and cryoprotected in 20% sucrose and frozen in OCT. 30  $\mu\text{m}$  coronal sections were cut by cyrostat for use in free floating IHC. Primary antibody ab32642 was incubated overnight at 1/3000 at room temperature. Secondary antibody Alexa fluor 488 1/3000 was incubated for 2 hours at room temperature.

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