



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

**$\alpha$ 1A Calcium Channel. Rabbit Polyclonal Antibody**

Voltage-gated calcium channel subunit alpha Cav2.1, Calcium channel, L type, alpha-1 polypeptide, isoform 4, Brain calcium channel I

**BACKGROUND**

Voltage-sensitive calcium channels (VSCCs) mediate the entry of calcium ions into excitable cells and are 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. The isoform alpha-1a gives rise to p and/or q-type calcium currents. P/q-type calcium channels belong to the 'high-voltage activated' (hva) group and are blocked by the funnel toxin (ftx) and by the omega-agatoxin-IVA (omega-aga-IVA). They are however insensitive to dihydropyridines (dhp), and omega- conotoxin-GVIA (omega-ctx-GVIA). 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.

**ORDERING INFORMATION**

**CATALOG NUMBER**  
X1506P

**SIZE**  
100  $\mu$ g  
**FORM**  
Unconjugated

**HOST/CLONE**  
Rabbit

**FORMULATION**  
Provided as solution in phosphate buffered saline with 0.08% sodium azide

**CONCENTRATION**  
See vial for concentration

**ISOTYPE**  
IgG

**APPLICATIONS**  
Western Blot

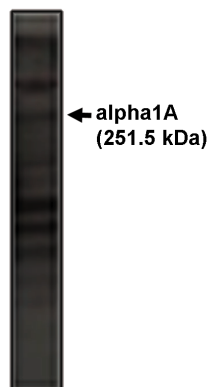
**SPECIES REACTIVITY**  
Rat

**ACCESSION NUMBER**  
Rat P54282  
Human O00555

**IMMUNOGEN**

Synthetic peptide derived from the rat  $\alpha$ 1A calcium channel conjugated to KLH

Western blot analysis  
 $\alpha$ 1A antibody on rat brain lysate.



**POSITIVE CONTROL/TISSUE EXPRESSION**

Rat brain lysate

**COMMENTS**

This antibody can be used for Western blotting (5-10  $\mu\text{g/ml}$ ). Optimal concentration should be evaluated by serial dilutions.

**PURIFICATION**

Ammonium Sulfate Precipitation

**SHIP CONDITIONS**

Ship at ambient temperature, freeze upon arrival

**STORAGE CUSTOMER**

Product should be stored at  $-20^{\circ}\text{C}$ . Aliquot to avoid freeze/thaw cycles

**STABILITY**

Products are stable for one year from purchase when stored properly

**REFERENCES**

1. Starr, T.V.B et.al 'Primary structure of a calcium channel that is highly expressed in the rat cerebellum' Proc. Natl. Acad. Sci. U.S.A. 88, 5621-5625 (1991)
2. Snutch, T.P et.al 'Rat brain expresses a heterogeneous family of calcium channels' Proc. Natl. Acad. Sci. U.S.A. 87 (9), 3391-3395 (1990)
3. Yu, A.S et.al. 'Molecular characterization and nephron distribution of a family of transcripts encoding the pore-forming subunit of  $\text{Ca}^{2+}$  channels in the kidney' Proc. Natl. Acad. Sci. U.S.A. 89 (21), 10494-10498 (1992)
4. Hansen PB, , et al. 'Vascular smooth muscle cells express the  $\alpha(1A)$  subunit of a P-/Q-type voltage-dependent  $\text{Ca}^{(2+)}$  Channel, and It is functionally important in renal afferent arterioles.' Circ Res (United States) 87(10) p896-902 (2000)
5. Stephens, G.I. et.al 'The Cav2.1/ $\alpha(1A)$  (P/Q-type) voltage-dependent calcium channel mediates inhibitory neurotransmission onto mouse cerebellar Purkinje cells.' Eur J Neurosci 13(10) 1902-12 (2001)

**PRODUCT SPECIFIC REFERENCES**