



# 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

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## Anti-Nicotine [NIC9D9] Standard Size Ab03255-23.0

This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG1 format for improved compatibility with existing reagents assays and techniques.

**Isotype and Format:** Rabbit IgG, Kappa

**Clone Number:** NIC9D9

**Alternative Name(s) of Target:** Nicotin; rac-3-(1-methylpyrrolidin-2-yl)pyridine; CAS: 54-11-5; CHEBI:18723; Nic12; 9D9

**UniProt Accession Number of Target Protein:**

**Published Application(s):** immunotherapy, ELISA

**Published Species Reactivity:** Species independent

**Immunogen:** The original antibody was generated by immunizing mice with keyhole limpet hemocyanin (KLH) conjugated nicotine hapten.

**Specificity:** This antibody is highly specific for S(-)-nicotine. Nicotine is a plant alkaloid, found in the tobacco plant and other plants of the nightshade family. It is an addictive central nervous system (CNS) stimulant that causes either ganglionic stimulation in low doses or ganglionic blockage in high doses. It is the main psychoactive ingredient in tobacco products and a major component of cigarettes, which is also used therapeutically to help with smoking cessation and reduce withdrawal symptoms.

**Application Notes:** The binding characterization of this antibody to nicotine-BSA hapten was done using ELISA (PMID: 11397142). A study to determine the effect of vaccination with this antibody towards a series of nicotine challenges and testing sessions was conducted. Passive immunization with NIC9D9 resulted in a 66.9% decrease in locomotor activity versus a 3.4% decrease in controls (PMID: 14738965). This antibody was also used in the generation of an adeno-associated virus (AAV) gene transfer vector which persistently expresses this antibody in vivo and prevents nicotine from reaching its receptors in the brain. This vector is called AAVantiNic and it generates an antibody similar to Nic9D9 that binds nicotine with an affinity of  $K_d = 43$  nM. The mice treated with this vector showed 7 times greater amounts of nicotine in the serum of which 83% was bound to IgG. The vector blocked nicotine-mediated alterations in arterial blood pressure, heart rate and locomotor activity (PMID: 22745437).

**Antibody First Published in:** Carrera et al. Investigations using immunization to attenuate the psychoactive effects of nicotine. *Bioorg Med Chem.* 2004 Feb 1;12(3):563-70. [PMID:14738965](#)

**Note on publication:** The paper describes the use of this antibody in the immunopharmacotherapy for treating nicotine addiction.

## Product Form

**Size:** 200 µg Purified antibody.

**Purification:** Protein A affinity purified

**Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Concentration:**

1 mg/ml.

Important note - This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.