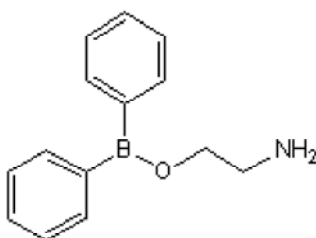


**Product Name:** 2-APB  
**CAS Number:** 524-95-8  
**IUPAC Name:** 2-Aminoethoxydiphenylborane

**Catalog No.:** 1224      **Batch No.:** 4  
**EC Number:** 208-366-5

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>14</sub>H<sub>16</sub>BNO.  
**Batch Molecular Weight:** 225.1  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM with gentle warming  
**Storage:** Store at RT  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	74.7	7.16	6.22
Found	74.79	7.5	6.31

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Catalog No.:** 1224

**Batch No.:** 4

CAS Number: 524-95-8

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IUPAC Name: 2-Aminoethoxydiphenylborane

**Description:**

2-APB is an a functional and membrane permeable D-myoinositol 1,4,5-trisphosphate (IP<sub>3</sub>) receptor antagonist (IC<sub>50</sub> = 42 μM). Stimulates store-operated calcium (SOC) release at low concentrations (< 10 μM) and inhibits it at higher concentrations (up to 50 μM). Increases STIM-Orai channel conductance and limits ion selectivity. Modulator of TRP channels; blocks TRPC1, TRPC3, TRPC5, TRPC6, TRPV6, TRPM3, TRPM7, TRPM8 and TRPP2 and at higher concentrations stimulates TRPV1, TRPV2 and TRPV3. Also blocks specific gap channel subtypes.

**Physical and Chemical Properties:**

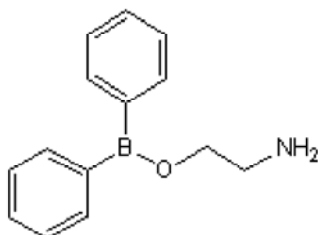
Batch Molecular Formula: C<sub>14</sub>H<sub>16</sub>BNO.

Batch Molecular Weight: 225.1

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 100 mM with gentle warming

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Varnai et al** (2009) STIM and Orai: the long-awaited constituents of store-operated calcium entry. *TiPs* **30** 118. PMID: 19187978.

**Togashi et al** (2008) Inhibition of the transient receptor potential cation channel TRPM2 by 2-aminoethoxydiphenyl borate (2-APB). *Br.J.Pharmacol.* **153** 1324. PMID: 18204483.

**Bai et al** (2006) Block of specific gap junction channel subtypes by 2-aminoethoxydiphenyl borate (2-APB). *J.Pharmacol.Exp.Ther.* **319** 1452. PMID: 16985167.

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956