

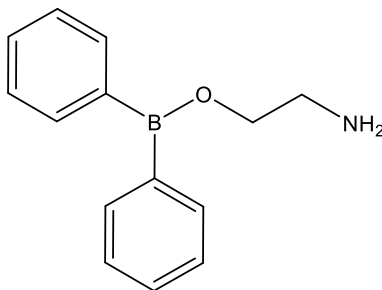
**Catalog # 10-1212**

**2-APB**

CAS# 524-95-8

2-Aminoethoxydiphenyl borate

Lot # X101023



IP<sub>3</sub> receptor antagonist (IC<sub>50</sub>=42 μM).<sup>1</sup> Inhibits store-operated Ca<sup>2+</sup> channels at high concentrations (50 μM) but stimulates at low concs. (<10 μM).<sup>2</sup> Modulates TRP channels, blocking TRPC1, TRPC3, TRPC5, TRPC6, TRPV6, TRPM3, TRPM7, TRPM8, TRPP2 and at higher concentrations, activating TRPV1, TRPV2, TRPV3<sup>3,4</sup> Also inhibits selected GAP junction subtypes.<sup>5</sup>

- 1) Maruyama *et al.* (1997) *2APB, 2-aminoethoxydiphenyl borate, a membrane-penetrable modulator of Ins(1,4,5)P3-induced Ca2+ release*; J. Biochem., **122** 498
- 2) Varnai *et al.* (2009) *STIM and Orai: the long-awaited constituents of store-operated calcium entry*; Trends Pharmacol. Sci., **30** 118
- 3) Togashi *et al.* (2008) *Inhibition of the transient receptor potential cation channel TRPM2 by 2-aminoethoxydiphenyl borate (2-APB)*; Br. J. Pharmacol., **153** 1324
- 4) Xu *et al.* (2005) *Block of TRPC5 channels by 2-aminoethoxydiphenyl borate: a differential, extracellular and voltage-dependent effect*; Br. J. Pharmacol., **145** 405
- 5) Bai *et al.* (2006) *Block of specific gap junction channel subtypes by 2-aminoethoxydiphenyl borate (2-APB)*; J. Pharmacol. Exp. Ther., **319** 1452

**PHYSICAL DATA**

Molecular Weight:	225.10
Molecular Formula:	C <sub>14</sub> H <sub>16</sub> BNO
Purity:	>98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 20 mg/ml), ethanol (up to 5 mg/ml)
Physical Description:	White Crystalline solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Protect from exposure to moisture. Solutions in DMSO or ethanol may be stored at -20°C for up to 2 months.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**