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## DATASHEET

### GBR 12909 dihydrochloride

### Product overview

<b>Name</b>	GBR 12909 dihydrochloride
<b>Cat No</b>	HB1812
<b>Alternative names</b>	Vanoxerine
<b>Biological action</b>	Inhibitor
<b>Purity</b>	>98%
<b>Description</b>	Potent, competitive dopamine uptake inhibitor

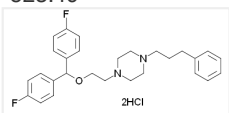
### Biological Data

<b>Biological description</b>	Potent, competitive dopamine uptake inhibitor ( $K_i = 1$ nM). Also a potent $K_v11.1$ , and $Na^+$ and $Ca^+$ channel blocker ( $IC_{50}$ values are 0.8, 320 and 830 nM at $hK_v11.1$ , $hI_{Ca,L}$ and $hNa_v1.5$ respectively and $\sigma$ receptor blocker). Shows variety of biological actions. Active <i>in vivo</i> .
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### Solubility & Handling

<b>Storage instructions</b>	Room temperature (desiccate)
<b>Solubility overview</b>	Soluble in water (25 mM, gentle warming) and in DMSO (50 mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	1-[2-[Bis-(4-fluorophenyl)methoxy]ethyl]-4-(3-phenylpropyl)piperazine dihydrochloride
<b>Molecular Weight</b>	523.49
<b>Chemical structure</b>	
<b>Molecular Formula</b>	$C_{28}H_{32}F_2N_2O \cdot 2HCl$
<b>CAS Number</b>	67469-78-7
<b>PubChem identifier</b>	104920
<b>SMILES</b>	<chem>C1CN(CCN1CCCC2=CC=CC=C2)CCOC(C3=CC=C(C=C3)F)C4=CC=C(C=C4)F.Cl.Cl</chem>
<b>InChi</b>	InChI=1S/C28H32F2N2O.2ClH/c29-26-12-8-24(9-13-26)28(25-10-14-27(30)15-11-25)33-22-21-32-19-17-31(18-20-32)16-4-7-23-5-2-1-3-6-23;/h1-3,5-6,8-15,28H,4,7,16-22H2;2*1H
<b>InChiKey</b>	MIBSKSYCRFWIRU-UHFFFAOYSA-N
<b>MDL number</b>	MFCD00055193

### References

#### The dopamine inhibitor GBR 12909: selectivity and molecular mechanism of action.

Andersen PH (1989) Eur J Pharmacol 166(3)  
**PubMedID** [2530094](#)

**Short-acting cocaine and long-acting GBR-12909 both elicit rapid dopamine uptake inhibition following intravenous delivery.**

España RA *et al* (2008) Neuroscience 155(1)

**PubMedID** [18597947](#)

**Vanoxerine: cellular mechanism of a new antiarrhythmic.**

Lacerda AE *et al* (2010) J Cardiovasc Electrophysiol 21(3)

**PubMedID** [19817928](#)

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