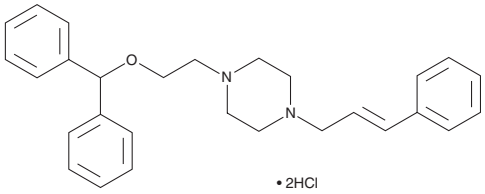
PRODUCT INFORMATION

GBR 12783 (hydrochloride)

Item No. 35662

CAS Registry No.:	67469-75-4
Formal Name:	1-[2-(diphenylmethoxy)ethyl]-4-(3-phenyl-2-propen-1-yl)-piperazine, dihydrochloride
Synonyms:	Lu 2-098, MW-486
MF:	$C_{28}H_{32}N_2O$ • 2HCl
FW:	485.5
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

GBR 12783 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the GBR 12783 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. GBR 12783 (hydrochloride) is soluble in DMSO. GBR 12783 (hydrochloride) is slightly soluble in acetonitrile.

Description

GBR 12783 is a dopamine uptake inhibitor (IC_{50} = 13 nM in rat striatal synaptosomes).[1] It is selective for inhibition of dopamine uptake over norepinephrine or serotonin (5-HT) uptake (IC_{50}s = 230 and 1,100 nM in rat hypothalamic and striatal synaptosomes, respectively). GBR 12783 (10 mg/kg, i.p.) improves learning and memory in the passive avoidance test in rats, an effect that can be blocked by the anticholinergic agent scopolamine.[2] It increases locomotor activity, reduces pentobarbital-induced sleep duration, and decreases immobility time in the forced swim test, in mice.[3] GBR 12783 (10 mg/kg) inhibits catalepsy induced by the antipsychotic haloperidol (Item No. 12014) in rats.

References

1. Bonnet, J.J. and Costentin, J. GBR 12783, a potent and selective inhibitor of dopamine uptake: Biochemical studies in vivo and ex vivo. *Eur. J. Pharmacol.* **121(2)**, 199-209 (1986).
2. Nail-Boucherie, K., Dourmap, N., Jaffard, R., *et al*. The specific dopamine uptake inhibitor GBR 12783 improves learning of inhibitory avoidance and increases hippocampal acetylcholine release. *Brain Res. Cogn. Brain Res.* **7(2)**, 203-205 (1998).
3. Duterte-Boucher, D., Kamenka, J.M., and Costentin, J. Comparison of the effects of three indirect dopamine agonists, GK 13, GBR 12783 and dexamphetamine on behavioural tests involving central catecholaminergic transmissions. *Psychopharmacology (Berl)* **101(3)**, 344-353 (1990).

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