

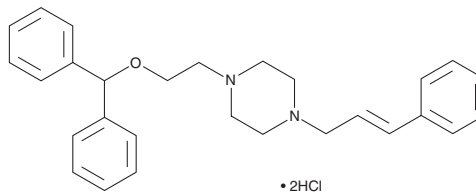
# PRODUCT INFORMATION



## 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<sub>28</sub>H<sub>32</sub>N<sub>2</sub>O • 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<sub>50</sub> = 13 nM in rat striatal synaptosomes).<sup>1</sup> It is selective for inhibition of dopamine uptake over norepinephrine or serotonin (5-HT) uptake (IC<sub>50</sub>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.<sup>2</sup> It increases locomotor activity, reduces pentobarbital-induced sleep duration, and decreases immobility time in the forced swim test, in mice.<sup>3</sup> 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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/16/2023

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM