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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

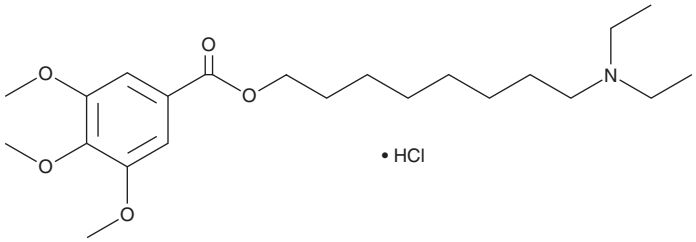
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

TMB 8 (hydrochloride)

Item No. 23928

CAS Registry No.:	53464-72-5
Formal Name:	3,4,5-trimethoxy-benzoic acid, 8-(diethylamino) octyl ester, monohydrochloride
MF:	$C_{22}H_{37}NO_5 \bullet HCl$
FW:	432.0
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

TMB 8 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the TMB 8 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. TMB 8 (hydrochloride) is slightly soluble in methanol and chloroform.

TMB 8 (hydrochloride) is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

TMB 8 is a non-competitive antagonist of nicotinic acetylcholine receptors (nAChRs) with IC_{50} values of 390 and 350 nM, respectively, for human muscle-type and α3β4 subunit-containing ganglionic nAChRs expressed in TE671/RD or SH-SY5Y cells.[1] It inhibits nicotine-induced dopamine release from rat brain synaptosomes (IC_{50} = 480 nM). TMB 8 also reduces calcium availability in smooth and skeletal muscle, blocking the contractile response in isolated rabbit aortic strip when used at a concentration of 50 µM and inhibiting calcium influx and efflux in isolated guinea pig ileum when used at a concentration of 65 µM.[2] It has been used in the study of intracellular calcium dynamics, particularly in smooth muscle.[3,4] TMB 8 also inhibits protein kinase C (PKC) activity in a dose-dependent manner.[5]

References

1. Bencherif, M., Eisenhour, C.M., Prince, R.J., *et al.* The "calcium antagonist" TMB-8 [3,4,5-trimethoxybenzoic acid 8-(diethylamino)octyl ester] is a potent, non-competitive, functional antagonist at diverse nicotinic acetylcholine receptor subtypes. *J. Pharmacol. Exp. Ther.* **275(3)**, 1418-1426 (1995).
2. Chiou, C.Y. and Malagodi, M.H. Studies on the mechanism of action of a new Ca^{2+} antagonist, 8-(N,N-diethylamino)octyl 3,4,5-trimethoxybenzoate hydrochloride in smooth and skeletal muscles. *Br. J. Pharmacol.* **53(2)**, 279-285 (1975).
3. Himmel, H.M. and Ravens, U. TMB-8 as a pharmacologic tool in guinea pig myocardial tissues. I. Effects of TMB-8 on force of contraction and on action potential parameters in atrial and papillary muscles. *J. Pharmacol. Exp. Ther.* **255(1)**, 293-299 (1990).
4. Ishihara, H. and Karaki, H. Inhibitory effect of 8-(N,N-diethylamino)octyl-3,4,5-trimethoxybenzoate (TMB-8) in vascular smooth muscle. *Eur. J. Pharmacol.* **197(2-3)**, 181-186 (1991).
5. Kojima, I., Kojima, K., and Rasmussen, H. Mechanism of inhibitory action of TMB-8 [8-(*NN*-diethylamino) octyl-3,4,5-trimethoxybenzoate] on aldosterone secretion in adrenal glomerulosa cells. *Biochem. J.* **232(1)**, 87-92 (1985).

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