SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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

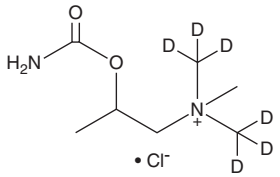
linkedin.com/company/szaboscandic

PRODUCT INFORMATION

Bethanechol-d_6 (chloride)

Item No. 33299

Formal Name: 2-(carbamoyloxy)-N-methyl-N,N-*bis*(methyl-d_3)propan-1-aminium, monochloride
Synonym: (±)-Bethanechol-d_6
MF: $C_7H_{11}D_6N_2O_2 \bullet Cl$
FW: 202.7
Chemical Purity: ≥98% (Bethanechol)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_6); ≤1% d_0
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

Bethanechol-d_6 (chloride) is intended for use as an internal standard for the quantification of bethanechol (Item No. 23830) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Bethanechol-d_6 (chloride) is supplied as a solid. A stock solution may be made by dissolving the bethanechol-d_6 (chloride) in the solvent of choice, which should be purged with an inert gas. Bethanechol-d_6 (chloride) is soluble in the organic solvent DMSO.

Description

Bethanechol is an agonist of muscarinic acetylcholine receptors with IC_{50} values of 1,837, 25, 631, 317, and 393 µM for $M_{1\text{-}5}$, respectively, in a radioligand binding assay using CHO cells expressing the human receptors.[1] It inhibits M_2-mediated increases in cyclic AMP induced by isoproterenol (Item No. 15592) in isolated guinea pig small intestine (IC_{50} = 127 µM).[2] Bethanechol increases basal tone of isolated porcine intravesical ureter (EC_{50} = 4.27 µM).[3] It also induces fluid secretion in the ileum, duodenum, and jejunum of anesthetized rats when administered at a dose of 60 µg/kg.[4] Formulations containing bethanechol have been used to increase urination and improve smooth muscle tone in the gastrointestinal tract.

References

1. Richards, M.H. and van Giersbergen, P.L. Human muscarinic receptors expressed in A9L and CHO cells: Activation by full and partial agonists. *Br. J. Pharmacol.* **114(6)**, 1241-1249 (1995).
2. Okamoto, H., Prestwich, S.A., Asai, S., *et al.* Muscarinic agonist potencies at three different effector systems linked to the M_2 or M_3 receptor in longitudinal smooth muscle of guinea-pig small intestine. *Br. J. Pharmacol.* **135(7)**, 1765-1775 (2002).
3. Hernández, M., Símonsen, U., Prieto, D., *et al.* Different muscarinic receptor subtypes mediating the phasic activity and basal tone of pig isolated intravesical ureter. *Br. J. Pharmacol.* **110(4)**, 1413-1420 (1993).
4. Young, A. and Levin, R.J. Intestinal hypersecretion of the refed starved rat: A model for alimentary diarrhoea. *Gut* **33(8)**, 1050-1056 (1992).

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