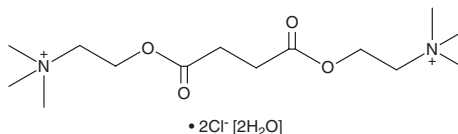


PRODUCT INFORMATION

Succinylcholine (chloride hydrate)

Item No. 32829

CAS Registry No.: 6101-15-1
Formal Name: 2,2'-[(1,4-dioxo-1,4-butanediyl)bis(oxy)]bis[N,N,N-trimethylethanaminium, dichloride, dihydrate
Synonym: Suxamethonium
MF: $C_{14}H_{30}N_2O_4 \cdot 2Cl [2H_2O]$
FW: 397.3
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

Succinylcholine (chloride hydrate) is supplied as a crystalline solid. Aqueous solutions of succinylcholine (chloride hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of succinylcholine (chloride hydrate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Succinylcholine is an agonist of muscle-type nicotinic acetylcholine receptors (nAChRs).¹ It activates the muscle-type $\alpha 1\beta 1\delta \epsilon$ subunit-containing nAChR ($EC_{50} = 10.8 \mu M$ in *X. laevis* oocytes expressing the human receptor) then induces desensitization of the receptor. It is selective for the muscle-type nAChR over $\alpha 3\beta 2$, $\alpha 3\beta 4$, $\alpha 4\beta 2$, or $\alpha 7$ subunit-containing neuronal nAChRs ($IC_{50s} = >100 \mu M$). Succinylcholine (600 μg) induces neuromuscular block in isolated rat phrenic nerve-diaphragm preparations stimulated via the phrenic nerve.² Formulations containing succinylcholine have been used as an adjunct to general anesthesia for its muscle relaxant properties.

References

- Jonsson, M., Dabrowski, M., Gurley, D.A., *et al.* Activation and inhibition of human muscular and neuronal nicotinic acetylcholine receptors by succinylcholine. *Anesthesiology* **104**(4), 724-733 (2006).
- Whittaker, R. The neuromuscular blocking action of suxamethonium on the rat diaphragm. *J. Pharm. Pharmacol.* **14**(1), 177-181 (1962).

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.

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