**Catalog # 10-1525**

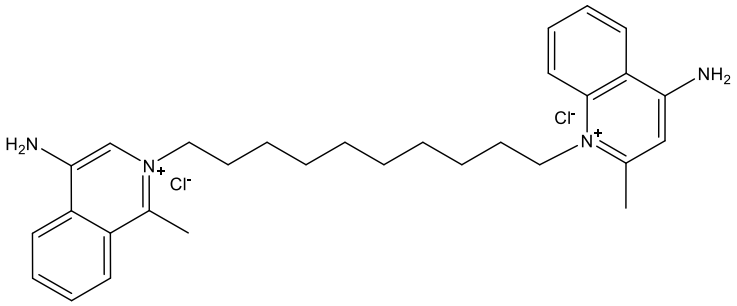
**MitoBloCK-12**

CAS# 522-51-0

1,1'-Decamethylenebis(4-aminoquinaldinium)dichloride; Dequalinium chloride

MB12; DECA

Lot # X108275




Attenuates mitochondrial protein import (4-10 μM). Discovered in a screen of FDA-approved drugs. Blocks translocation of a mutant form of alanine: glyoxylate aminotransferase (AGT) to the mitochondria and restores AGT trafficking to peroxisomes.[1] Also reduces oxalate accumulation and thus has potential to treat patients with primary hyperoxaluria 1 who possess mutations in AGT.[1] Also displays antimicrobial activity[2], inhibits apamin-sensitive $K^+$ channels[3] and induces apoptosis by inhibiting XIAP[4].


*1)* Miyata *et al*. (2014), *Pharmacologic rescue of an enzyme-trafficking defect in primary hyperoxaluria 1*; Proc. Natl. Acad. Sci. USA **111** 14406

2) Frey Tirri *et al*. (2011), *Antimicrobial topical agents used in the vagina;* Curr. Probl. Dermatol. **40** 36

3) Castle *et al*. (1993), *Dequalinium: a potent inhibitor of apamin-sensitive K+ channels in hepatocytes and of nicotinic responses in skeletal muscle;* Eur. J. Pharmacol. **236** 201

4) Orzaez *et al*. (2011), *Characterization of dequalinium as a XIAP antagonist that targets the BIR2 domain;* Apoptosis **16** 460


## PHYSICAL DATA

| | |
|---|---|
| Molecular Weight: | 527.58 |
| Molecular Formula: | $C_{30}H_{40}Cl_2N_4$ |
| Purity: | >98% by TLC |
| | NMR: (Conforms) |
| Solubility: | DMSO (1 mg/ml with warming), or Water (1 mg/ml) |
| Physical Description: | Beige solid |
| Storage and Stability: | Store as supplied at room temperature for up to 2 years from the date of purchase. |
| | Solutions in DMSO or distilled water may be stored at -20°C for up to 3 months |

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