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## Product Data Sheet

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Product Name: AAQ chloride

Cat. No.: GC50167

### Chemical Properties

Cas. No.

SMILES O=C(C=C)NC(C=C2)=CC=C2/N=N/C1=CC=C(NC(C[N+])(CC)(CC)CC)=O)C=C1.[Cl-]

Formula  $C_{23}H_{30}ClN_5O_2$  M.Wt 443.97

Solubility Soluble in DMSO Storage Store at  $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at  $37^{\circ}C$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}C$  for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure 

### Background

Photoswitchable Kv channel blocker (IC50 values are 2 and 64  $\mu M$  at 500 nm and 380 nm respectively). Switches conformation from cis to trans at 500 nm and trans to cis at 380 nm. Exhibits minimal activity at Nav1.2 and L-type  $Ca^{2+}$  channels. Stimulates action potential firing of hippocampal neurons in vitro at 500 nm and restores visual responsiveness in blind mice at 380 nm.

Fortin et al (2008) Photochemical control of endogenous ion channels and cellular excitability. Nat.Methods 5 331 PMID:18311146 |Polosukhina et al (2012) Photochemical restoration of visual responses in blind mice. Neuron 75 271 PMID:22841312 |Banghart et al (2009) Photochromic blockers of voltage-gated potassium channels. Angew.Chem.Int.Ed. 48 9097 PMID:19882609

**Caution: Product has not been fully validated for medical applications. For research use only.**

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