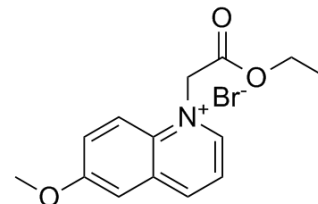


MQAE

Cat. No.:	HY-D0090
CAS No.:	162558-52-3
Molecular Formula:	C ₁₄ H ₁₆ BrNO ₃
Molecular Weight:	326.19
Target:	Others
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 35 mg/mL (107.30 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM	3.0657 mL	15.3285 mL	30.6570 mL
	5 mM	0.6131 mL	3.0657 mL	6.1314 mL	
	10 mM	0.3066 mL	1.5328 mL	3.0657 mL	

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

MQAE is a fluorescent indicator that is quenched via collision with chloride, and is more sensitive and selective than ³⁶Cl and microelectrode-based methods for chloride measurement in cells.

In Vitro

Bath-applied to acute brain slices, MQAE provides high-quality labeling of neuronal cells and their processes^[1]. MQAE fluorescence is adequate and comparable method for measuring cAMP-dependent chloride transport in individual cells^[2]. MQAE can be used to measure intracellular chloride concentration in primary cultures of rat aortic smooth muscle cells (VSMC)^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cells. 2020 Apr 22;9(4):1045.

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REFERENCES

- [1]. Kovalchuk Y, et al. Two-photon chloride imaging using MQAE in vitro and in vivo. Cold Spring Harb Protoc. 2012 Jul 1;2012(7):778-85.
- [2]. Andersson C, et al. Determination of chloride efflux by X-ray microanalysis versus MQAE-fluorescence. Microsc Res Tech. 2002 Dec 15;59(6):531-5.
- [3]. Koncz C, et al. Use of MQAE for measurement of intracellular [Cl⁻] in cultured aortic smooth muscle cells. Am J Physiol. 1994 Dec;267(6 Pt 2):H2114-23.
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA