

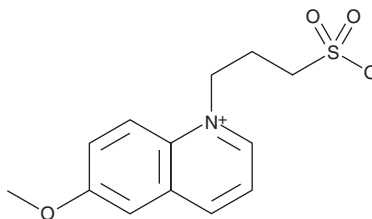
PRODUCT INFORMATION



SPQ

Item No. 27604

CAS Registry No.: 83907-40-8
Formal Name: 6-methoxy-1-(3-sulfopropyl)-quinolinium, inner salt
MF: C₁₃H₁₅NO₄S
FW: 281.3
Purity: ≥95%
Ex./Em. Max: 320 and 350/445 nm, respectively
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

SPQ is supplied as a solid. A stock solution may be made by dissolving the SPQ in water. We do not recommend storing the aqueous solution for more than one day.

Description

SPQ is a fluorescent chloride indicator.¹ Its fluorescence is rapidly quenched by chloride *in vitro*. It has been used to assess voltage-sensitive chloride transport in placental microvillus vesicles. It has also been used to continuously quantify intracellular calcium efflux induced by parathyroid hormone, forskolin (Item No. 11018), and phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) in isolated human erythrocytes.² In addition, SPQ has been used to determine the type of ion conductance induced by the cystic fibrosis transmembrane conductance regulator (CFTR) in HEK293 cells expressing pTrial10-CRTR2.³ SPQ displays excitation maxima of 320 and 350 nm and an emission maximum of 445 nm.¹

References

1. Illsley, N.P. and Verkman, A.S. Membrane chloride transport measured using a chloride-sensitive fluorescent probe. *Biochemistry* **26**(5), 1215-1219 (1987).
2. Soldati, L., Adamo, D., Spaventa, R., *et al.* Chloride fluxes activated by parathyroid hormone in human erythrocytes. *Biochem. Biophys. Res. Commun.* **269**(2), 470-473 (2000).
3. MacVinish, L.J., Gill, D.R., Hyde, S.C., *et al.* Chloride secretion in the trachea of null cystic fibrosis mice: the effects of transfection with pTrial10-CFTR2. *J. Physiol.* **499**(Pt. 3), 677-687 (1997).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/02/2022

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