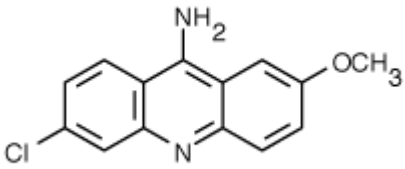
FT-155822

ACMA

Product Information

Name :	**ACMA** 9-amino-6-chloro-2-methoxyacridine
Catalog Number :	FP-155822, 100 mg
Structure :	$C_{14}H_{11}Cl_lN_2O$
Molecular Weight :	MW= 258.71
Soluble:	DMSO, DMF
Absorption / Emission :	$\lambda_{exc}\backslash\lambda_{em}$ = 412 / 471 nm
Extinction Coefficient :	ε =8 200 $M^{-1}cm^{-1}$



Storage: Store at +4°C (K). Protect from light and moisture

Introduction

ACMA is a DNA intercalator that selectively binds to poly(d(A-T)) with a binding affinity constant of $2x10^5$ M^{-1} at pH 7.4. Excitation of the ACMA–DNA complex is possible with most UV-light sources, making it compatible for use with both shorter- and longer-wavelength dyes.
ACMA also apparently binds to membranes in the energized state and becomes quenched if a pH gradient forms. It has been extensively employed to follow cation and anion movement across membranes and to study the proton-pumping activity of various membrane-bound ATPases.

Directions for use

Protocol may found in the literature.

References

- "Mechanistic differences in the energy-linked fluorescence decreases of 9-aminoacridine dyes associated with bovine heart submitochondrial membranes." Huang CS, Kopacz SJ, Lee CP. Biochim Biophys Acta 722, 107-115 (1983) PN5962.
- "Catalytic site nucleotide binding and hydrolysis in F1F0-ATP synthase." Lobau S, Weber J, Senior AE. Biochemistry 37, 10846-10853 (1998) PN31174.
- "Transmembrane topography of subunit a in the Escherichia coli F1F0 ATP synthase." Valiyaveetil FI, Fillingame RH. J Biol Chem 273, 16241-16247 (1998) PN30461.
- "Insertion scanning mutagenesis of subunit a of the F1F0 ATP synthase near His245 and implications on gating of the proton channel." Vik SB, Patterson AR, Antonio BJ. J Biol Chem 273, 16229-16234 (1998) PN30471.
- "The proton pumping activity of H(+)-ATPases: an improved fluorescence assay." Rottenberg H, Moreno-Sanchez R. Biochim Biophys Acta 1183, 161-170 (1993) PN16277.
- "Site-directed mutagenesis of the yeast V-ATPase B subunit (Vma2p)." Liu Q, Kane PM, Newman PR, Forgac M. J Biol Chem 271, 2018-2022 (1996) PN21963.
- "Site-directed mutagenesis of the 100-kDa subunit (Vph1p) of the yeast vacuolar (H+)-ATPase." Leng XH, Manolson MF, Liu Q, Forgac M. J Biol Chem 271, 22487-22493 (1996) PN27426.
- "Inhibition of vacuolar H(+)-ATPase by disulfide bond formation between cysteine 254 and cysteine 532 in subunit A." Feng Y, Forgac M. J Biol Chem 269, 13224-13230 (1994) PN16847.

Ordering information

Catalog size quantites and prices may be found at http://www.fluoprobes.
Please inquire for higher quantities (avaibility, shipment conditions).

For any information, please ask : Fluoprobes / Interchim; Hotline : +33(0)4 70 03 73 06

Disclaimer : Materials from FluoProbes® are sold **for research use only**, and are not intended for food, drug, household, or cosmetic use. FluoProbes® is not liable for any damage resulting from handling or contact with this product. Rev.E12VB