Product Data Sheet

Product Name: Quin-2AM (Quin-2 acetoxymethyl ester)
Cat. No.: GC33587

Chemical Properties

Cas. No.	83104-85-2		
SMILES	O=C(OCOC(C)=O)CN(CC(OCOC(C)=O)=O)C1=CC=C(C)C=C1OCC2=NC3=C(N(CC(OCOC(C)=O)=O)CC(OCOC(C)=O)=O)C=C(OC)C=(		
Formula	$C_{38}H_{43}N_3O_{18}$	M.Wt	829.76
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be below -20℃ 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	Quin-2AM (Quin-2 acetoxymethyl ester)		

Protocol

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1.□□□□□

(1)□□□□□: □□□□□□DMSO□□□□□□1-10mM□AM□□□□□

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① □□□□□□□□□□□-20℃□-80°C□□□□□□□□□□□□

② □□□□□□□(AM)□□

(2)□□□□□:□□□□□□□(□:□□□□□□□□□□□PBS)□□□□□□□□□□□1-10μM□□□□□

□□:

① AM□□□□□□□□□□□□□□□□□□□□□□□□20% Pluronic F-127□□□□□□AM□□□□□□□

② Pluronic F-127□□□□AM□□□□□□□□□□□□□□□□□□□□□PluronicF-127□□□AM□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

③ □□20%(w/v) Pluronic F-127□□:□□100mg Pluronic F-127□□(□□: GB30090)□□□500μl DMSO□40-50℃□□20-30min□□□□□□□□□□□□□□□□□□□□□□□□
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④ □□□□GLPBIO□□□□□□Pluronic F-127(20% Solution in DMSO) □□□□GB30091□

⑤ □□□□□20% Pluronic F-127□□□□□□□□□□□Pluronic F-127□□□□□□□□□0.02%□

⑥ □□□□□□□□□□□□□□□□□□□□□□□□□□□

2.□□□□□□

(1)□□□□□□4°C□1000*g*□□3-5□□□□□□□□□□□PBS□□□□□□□□□□□□□□5□□□

(2)□□□□□□□PBS□□□□□□□□□□□□□□□□□□□□□□□□□□1000*g*□□3-5min□

(3)□□□□□□□□□□□□□□□□□□□□□□□□□□□20min-2h□□□□□□□□□□□□□□□□□□□□□□□□□□□□

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① AM□□□□□□□□□□□□□□□□□□□4-5μM□□

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Product Data Sheet

③ □□□□□□□□□□□□□□□□AM□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□2~3□□

④ □□□□□□□□□□□□□□□□□□□

(4)□□□□□□1000*g*□□5□□□□□□□□□PBS□□□□□□□2-3□□□□□□□□

(5)□□□□30min□□□□□AM□□□□□□

3.□□□□□□

(1)□□□□□□□□□□□□

(2)□□□□□□□□□□□□□□□□□□□□□□□□□□□□

(3)□□□□□□□□100µL□□□□□□□□□□□□□□□□□□□

(4) □□□□□□□□□□□□20min-2h□□□□□□□□□□□□□□□□□□□□□□□□

(5)□□□□□□□□□□□□□PBS□□□□□□□□□2~3□□

(6)□□□30min□

4.□□□□□□Quin-2AM□□□□□□□□□□□□□339/492nm□

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2□□□□□□□□□□□□□□□□□□□□□□□

Background

Quin-2 AM is a cell-permeant acetoxymethyl ester of the high affinity fluorescent calcium indicator quin-2 . As quin-2 AM enters cells, it is hydrolyzed by intracellular esterases to produce quin-2. Quin-2 binds calcium with a K_d value of 115 nM.[1] It displays high selectivity for calcium, as it is not affected by sodium gradients, membrane potential, or intracellular pH.[1] High affinity probes like quin-2 are ideal for monitoring low levels of calcium, as are found in resting cells.[1,2] Loadings of up to 2 mM quin-2 are without serious toxic effects, so quin-2 may be used to buffer intracellular calcium transients. Excitation and emission maxima for quin-2 are 339 and 492 nm, respectively.

1.Tsien, R.Y., Pozzan, T., and Rink.T.J.Calcium homeostasis in intact lymphocytes: cytoplasmic free calcium monitored with a new, intracellularly trapped fluorescent indicatorJ. Cell. Biol.947(2)325-334(1982) 2.Minta, A., Kao, J.P., and Tsien, R.Y.Fluorescent indicators for cytosolic calcium based on rhodamine and fluorescein chromophoresJ. Biol. Chem.264(14)8171-8178(1989)

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