Product Data Sheet

Product Name: Acrylodan
Cat. No.: GC61505

Chemical Properties

Cas. No.	86636-92-2		
SMILES	C=CC(C1=CC=C2C=C(C=CC2=C1)N(C)C)=O		
Formula	$C_{15}H_{15}NO$	M.Wt	225.29
Solubility	DMSO : 50 mg/mL (221.94 mM; Need ultrasonic)	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 stored 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	Acrylodan		

Background

Acrylodan, reacted with thiols, is sensitive to the local environmental dipolarity and dynamics within the binding pocket surrounding Cys34[1][2].

Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).Purification and Labeling of Act1: 1.20-fold molar excess of acrylodan (Anaspec) was added to the polymerized actin and incubated on ice overnight. 2.The labeled actin is centrifuged (2 h, 4 °C, 100,000 × g) then the pellet was resuspended in 10 mm Tris, pH 7.5, 0.5 mm β-mercaptoethanol, 0.2 mm CaCl2, 50 µm ATP and dialyzed against the same buffer for 70 h at 4 °C. 3.The supernatant was collected and the actin concentration and degree of labeling were calculated using the extinction coefficient 26,600 M-1 cm-1 for actin at 290 nm, 18,500 M-1 cm-1 or acrylodan at 385 nm, and 71,000 M-1 cm-1 for Alexa Fluor 488 at 494 nm. 4.Acrylodan-labeled Act1 (AcrylAct1NAT) is dramatically different than that of EDTA-unfolded AcrylAct1 (AcrylAct1I3), which has a very similar emission spectrum to CCT-bound AcrylAct1.

[1]. Sarah F Stuart, et al. A two-step mechanism for the folding of actin by the yeast

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cytosolic chaperonin. J Biol Chem. 2011 Jan 7;286(1):178-84. [2]. K Flora, et al. Unfolding of acrylodan-labeled human serum albumin probed by steady-state and time-resolved fluorescence methods. Biophys J. 1998 Aug;75(2):1084-96.

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