Product Data Sheet

Product Name: AQC

Cat. No.: GC39738

Chemical Properties

Cas. No.	148757-94-2		
SMILES	O=C(ON1C(CCC1=O)=O)NC2=CC=C3N=CC=CC3=C2		
Formula	$C_{14}H_{11}N_3O_4$	M.Wt	285.25
Solubility	DMSO: 125 mg/mL (438.21 mM)	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	AQC		

Protocol

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1□□□□□

□1□□□□□□□□□□□□□□□ (□□) □□□ 2mg/mL□

□2□ □□□□□ PH □□ 8.5±0.5□□□ pH □□□ 8.0□□□□ 1M □□□□□□□□□

□3□ □□□□□□□□ 2mg/mL□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ 2-10mg/mL□

□4□□□□□□□□□□ (□ Tris □□□□) □□□□□□□□□□□□□□□□□□□□□

2□□□□□ (□ AQC □□)

□1□□□□ DMSO □□ AQC □□□□□ 10mM □□□□□□□□□□□□□□□□

3□□□□□□□□

□1□□□□□□ AQC □□□□□□□□□□□□AQC □□□□□□□□□□□□ 10 □□□

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□2□Example□□□□□□ marker protein □ 500μL 2mg/mL IgG (MW=150,000)□□ 100μL DMSO □□ 1mg AQC□□□□□□ AQC □□□ 1.9μL□□□□□□□□□□

mmol (IgG) =mg/mL (IgG) ×mL (IgG)/MW (IgG) =2mg/mL × 0.5mL/150,000mg/mmol= 6.7×10^{-6}mmol

mmol (AQC) =mmol (IgG) × 10=6.7×10^{-6} mmol×10=6.7×10^{-5} mmol

μL (AQC) = mmol (AQC) ×MW (AQC)/mg/μL (AQC) =6.7×10^{-5}mmol ×285.25mg/mmol/0.01mg/μL=1.9 μL (AQC)

4□□□□□□□

□1□□□□□□□□□ 10mg/mL AQC □□□□□ 0.5mL □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□

□2□□□□□□□□□□□□□□□□□ 10-15 □□□□□□□□□□□ 60 □□□

5□□□□□□□□□□□□□□ SepHadex G-25 □□□□□-□□□□□□□□□

□1□□□□□□□□□ SepHadex G-25 □□

□2□□□□□□□□□□ SepHadex G-25 □□□□□

□3□ □□□□□□□□□□□□□□□□□□□□ PBS (pH 7.2-7.4)□

□4□□□□□□□□□□ PBS (pH 7.2-7.4) □□□□□□□

References:

[1]Bosch L, Alegría A, Farré R. Application of the 6-aminoquinolyl-N-hydroxysccinimidyl carbamate (AQC) reagent to the RP-HPLC determination of amino acids in infant foods. J Chromatogr B Analyt Technol Biomed Life Sci. 2006 Feb 2;831(1-2):176-83.

Background

AQC is a reactive probe used for pre-column derivatization of primary and secondary amines—including amino groups in amino acids, peptides, proteins, and polyamines—yielding stable, highly fluorescent derivatives with excitation/emission maxima at 248/398nm. AQC has been employed for the chromatographic separation and analysis of

amino acids and polyamines[1].

References:

[1] Pawlowska M, Chen S, Armstrong DW. Enantiomeric separation of fluorescent, 6-aminoquinolyl-N-hydroxysuccinimidyl carbamate, tagged amino acids. J Chromatogr. 1993 Jul 9;641(2):257-65.