Product Data Sheet

Product Name: NEP
Cat. No.: GC61589

Chemical Properties

Cas. No.	2414276-32-5		
SMILES	O=C(N1CCCC)C2=C3C(C(NC(OCC4S[As](SC4)C5=CC=C(C=C5)NC(CCN)=O)=O)=CC=C3C1=O)=CC=C2		
Formula	$C_{29}H_{31}AsN_4O_5S_2$	M.Wt	654.63
Solubility		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	NEP		

Background

NEP (VDP-green (NEP)) is a turn-on fluorescent probe based on the intramolecular charge transfer (ICT) mechanism for sensing vicinal dithiol-containing proteins (VDPs). NEP is exhibits high selectivity toward VDPs in live cells and in vivo and displays a strong green fluorescence signal (Λex/Λem=430/535 nm). NEP has the potential for parkinsonism[1].

NEP (1-30 μM; 6 hours) has no or little cytotoxicity in HepG2 and PC12 cells[1]. NEP (10 μM; 4 hours) causes the fluorescence intensity to decrease gradually in PC12 cells pretreated with 6-OHDA (0, 50, 100, and 200 μM; for 30 min)[1]. NEP contains a dithiarsolane moiety (five-membered As-S ring) as the receptor of VDPs. In the presence of VDPs, NEP displays a strong green fluorescence signal produced by the cyclic dithiarsolane cleavage and subsequent intramolecular cyclization to liberate the fluorophore. NEP maintains a reliable fluorescence response within the range of pH 7-10[1].

NEP (10 μM; for 4 h) causes the obvious green signal in zebrafishes (4 day old)[1].

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

[1]. Guodong Hu, et al. Decrease of Protein Vicinal Dithiols in Parkinsonism Disclosed by a Monoarsenical Fluorescent Probe. Anal Chem. 2020 Mar 17;92(6):4371-4378.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA