

Product Data Sheet

Product Name: ThioFluor 623

Cat. No.: GC45041

Chemical Properties

Cas. No. 1004324-99-5

SMILES COCOCOCOCN(c1ccc(cc1)\C=C/C1=C(CN)C(=C(CN)CN)OC1(C)C)S(=O)(=O)c1ccc(cc1[N])(=O)O)[N](=O)O

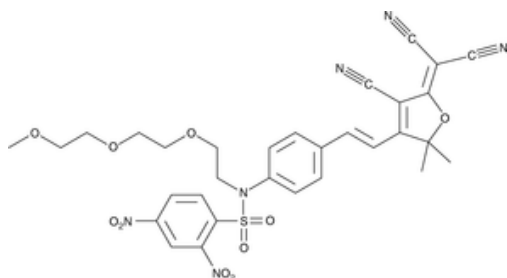
Formula C₃₁H₃₀N₆O₁₀S M.Wt 678.7

Solubility DMF: 20 mg/ml, DMSO: 20 mg/ml Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

The rapid, selective, and sensitive sensing of thiols is important in diverse areas of research. This thiofluor 623 responds upon exposure to thiols with an increase in fluorescence intensity of up to 120-fold. The response is selective for thiols and occurs in aqueous media. In the absence of thiols, the probe is essentially non-fluorescent; thiols cause cleavage of the probe, generating a fluorophore with an absorption maximum of 563 nm and emission at 623 nm. The fluorescence quantum yield of the cleaved product, generated in response to thiols, increases in more viscous media, suggesting ideal performance in biological systems and applicability to single-molecule or 2-photon sensing schemes. The thiofluor 623 is cell-permeable and reacts selectively with intracellular thiols. The pseudo-first order rate constant (k_{obs}) depends on substrate (e.g., $2.1 \times 10^{-3} \text{ s}^{-1}$ for cysteine, $2.0 \times 10^{-5} \text{ s}^{-1}$ for human serum albumin).

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA