

Product Data Sheet

Product Name: Sel-green
Cat. No.: GC61587

Chemical Properties

Cas. No. 1574299-37-8

SMILES O=S(C1=CC=C([N+])([O-])=O)C=C1[N+])([O-])=O
(NC2=CC3=CC=C(N(CC)CC)C=C3OC2=O)=O

Formula $C_{19}H_{18}N_4O_8S$ M.Wt 462.43

Solubility Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility , please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

Protocol

Sel-green [1]

1. Sel-green DMSO 5-10mM
20μM 10% FBS 2mM 100U/mL / Na₂SeO₃ (Sec)₂ 5μM

2. 37°C 5% CO₂ 12 24
12 1mL 24 0.5mL 24

3.

1 Sec Na₂SeO₃ 5μM 1 12 Sec

2 Sec (Sec)₂ 5μM 1

3 SeO₂ Na₂SeO₃ DBDS 5μM 1 6 12

Caution: Product has not been fully validated for medical applications. For research use only.
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4. 将 Sel-green 溶液 (20 μM) 在 37°C 孵育 30 分钟后，加入 PBS 溶液，测定 Sel-green 的激发/发射波长 (370/502 nm)。

1. Sel-green 溶液 pH=7.4 孵育 30 分钟后，加入 Sec 溶液，测定 Cys, GSH 100 μM。

2. Sel-green 溶液孵育 30 分钟后，加入 Sec 溶液，测定 Cys, GSH 100 μM。

3. Sel-green 溶液孵育 30 分钟后，加入 Sec 溶液，测定 Cys, GSH 100 μM。

References:

[1] Zhang B, Ge C, Yao J, et al. Selective selenol fluorescent probes: design, synthesis, structural determinants, and biological applications. *J Am Chem Soc.* 2015 Jan 21;137(2):757-69.

Background

Sel-green is a selective fluorescent probe for selenol. Sel-green (with an excitation/emission wavelength of approximately 370/502nm) can be used to quantify the Sec content in the selenoenzyme thioredoxin reductase and to perform fluorescence imaging of Sec in live cells. Sel-green can be applied in related research on cancer and cell biology^[1].

References:

[1] Zhang B, Fang J. Assay of selenol species in biological samples by the fluorescent probe Sel-green. *Methods Enzymol.* 2022;662:259-273.

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