

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

# Zuschläge

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- Gefahrgutzuschlag
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### **Product** Data Sheet

### **Gol-NTR**

Cat. No.: HY-151537 Molecular Formula:  $C_{\gamma_4}H_{\gamma_6}F_3N_\gamma O_A$ 

Molecular Weight: 467.4

Target: Fluorescent Dye

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

#### **BIOLOGICAL ACTIVITY**

Gol-NTR is a Golgi-targetable probe with high selectivity and sensitivity. Gol-NTR is Nitroreductase (NTR)-activated and has visualization acute lung injury (ALI) and repair function. Gol-NTR has a low detection limit of 54.8 ng/mL. Gol-NTR can be used for the research for monitoring and assessing research response of sepsis-induced ALI<sup>[1]</sup>.

In Vitro Fluorescent labeling of NTR by Gol-NTR<sup>[1]</sup>

(1) Prepare 1.0 mM Gol-NTR stock solution with DMSO solution.

(2) Dilute the stock solution with DMSO solution to prepare 5.0  $\mu$ M Gol-NTR working solution.

(3) Mix 5.0 µM Gol-NTR with 50 µM NADH in PBS buffer (10 mM, pH 7.4) containing 5% DMSO, and then add appropriate NTR.

(4) After incubation at 37 \( \text{for 30 min, the spectra was recorded at 405 nm (slit width: dex/dem=5/5 nm).} \)

Fluorescence labeling of NTR in A549 cells by Gol-NTR<sup>[1]</sup>

(1) A549 cells were cultured at different oxygen concentrations (1%, 5%, 10%, 15% and 20%  $O_2$ ) for 8 h.

(2) A549 cells were washed with phosphate buffered saline (PBS).

(3) A549 cells were treated with 5.0  $\mu$ M Gol-NTR for 1 h.

(4) Fluorescence images of A549 cells were observed using confocal fluorescence imaging.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo Imaging<sup>[1]</sup>

(1) C57BL/6 male mice (6-8 weeks old, weight 20-22 g) were pre injected with 300  $\mu$ L DMOG (25 mg/mL), after 24 h, intraperitoneal injection of 300  $\mu$ L LPS (10 mg/kg) for 6 h.

 $\ensuremath{\text{(2)}}\ \text{Mice were killed by cervical vertebra dislocation and lung organs were collected.}$ 

(3) After washing with PBS, incubate with 50  $\mu$ M Gol-NTR in PBS for 1 h.

(4) After washing with PBS, fluorescence imaging was performed on a small animal imaging system (excitation wavelength of 420 nm and emission wavelength of 510 nm).

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### **REFERENCES**

[1]. Tang Z, et al. Precise Monitoring and Assessing Treatment Response of Sepsis-Induced Acute Lung Hypoxia with a Nitroreductase-Activated Golgi-Targetable Fluorescent Probe. Anal Chem. 2022 Oct 25;94(42):14778-14784.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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