

# Produktinformation



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Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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#### SZABO-SCANDIC HandelsgmbH

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## **Gol-NTR**

Cat. No.:	HY-151537	
CAS No.:	2968461-58-5	
Molecular Formula:	$C_{24}H_{16}F_3N_3O_4$	
Molecular Weight:	467.4	
Target:	Fluorescent Dye	
Pathway:	Others	<sup>1</sup> Ė <sup>1</sup> <sup>1</sup> <sub>N</sub> +0 <sup>-</sup>
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)	

BIOLOGICAL ACTIVITY		
Description	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	<ul> <li>Fluorescent labeling of NTR by Gol-NTR<sup>[1]</sup></li> <li>(1) Prepare 1.0 mM Gol-NTR stock solution with DMSO solution.</li> <li>(2) Dilute the stock solution with DMSO solution to prepare 5.0 μM Gol-NTR working solution.</li> <li>(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.</li> <li>(4) After incubation at 37⊠ for 30 min, the spectra was recorded at 405 nm (slit width: d<sub>ex</sub>/d<sub>em</sub>=5/5 nm).</li> <li>Fluorescence labeling of NTR in A549 cells by Gol-NTR<sup>[1]</sup></li> <li>(1) A549 cells were cultured at different oxygen concentrations (1%, 5%, 10%, 15% and 20% O<sub>2</sub>) for 8 h.</li> <li>(2) A549 cells were washed with phosphate buffered saline (PBS).</li> <li>(3) A549 cells were treated with 5.0 μM Gol-NTR for 1 h.</li> <li>(4) Fluorescence images of A549 cells were observed using confocal fluorescence imaging.</li> <li>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</li> </ul>	
In Vivo	<ul> <li>In Vivo Imaging<sup>[1]</sup></li> <li>(1) C57BL/6 male mice (6-8 weeks old, weight 20-22 g) were pre injected with 300 μL DMOG (25 mg/mL), after 24 h, intraperitoneal injection of 300 μL LPS (10 mg/kg) for 6 h.</li> <li>(2) Mice were killed by cervical vertebra dislocation and lung organs were collected.</li> <li>(3) After washing with PBS, incubate with 50 μM Gol-NTR in PBS for 1 h.</li> <li>(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).</li> <li>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</li> </ul>	

#### 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.

Product Data Sheet

# RedChemExpress

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

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