



CDg16
P016
1 μ mol

- **Known Property** activated macrophage probe
- **Application** Immunofluorescence
- **Cell selectivity mechanism:** GOLD (SLC18B1)
- **Storage**
 - ① Delivery: Room Temperature
 - ② Dried compound: 4 °C or -20 °C
 - ③ Compound solution: 4 °C or -20 °C

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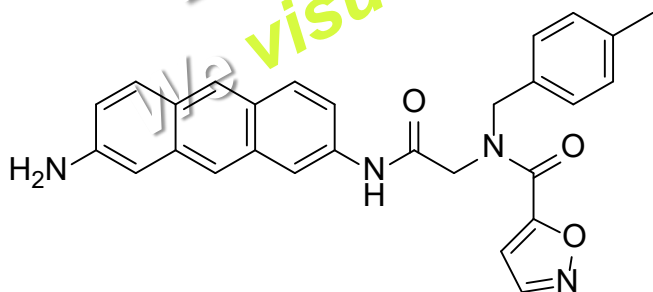
General Use Guide

More than 1/100 dilution of 10mM of DMSO stock solution is essential

For biomedical use to avoid DMSO concentration higher than 1%.

Working concentrations for specific applications should be determined by the investigator.

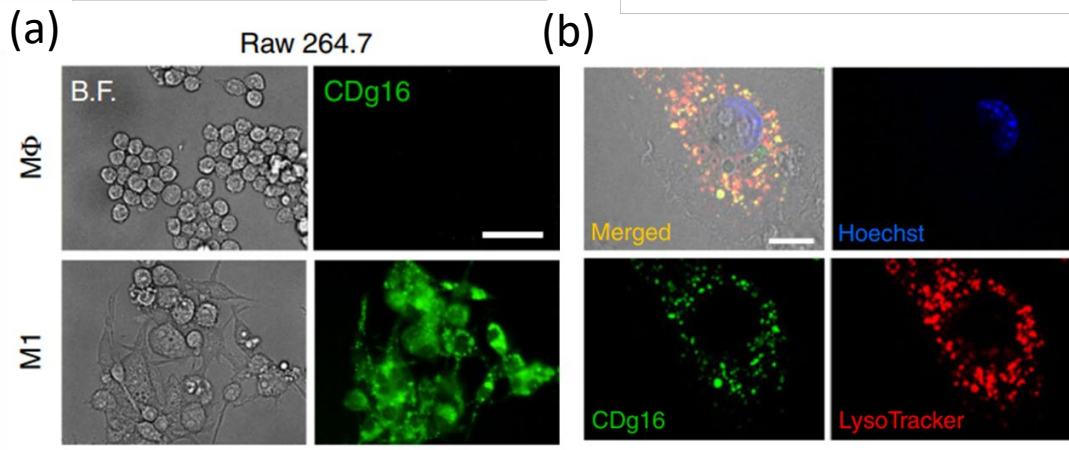
It is recommended to use up the buffer diluted solution within one day. The compound may be decomposed or precipitated out from buffer solution.



Molecular Weight 688.4 (C₄₅H₅₄ClN₃O)

$\lambda_{ex} / \lambda_{em}$ 806 / 821 nm

CDg16 (Compound of Designation green 16) is a selective probe for activated macrophage over resting state cells, and is expected to have high signal with low background at active inflammation site. **CDg16** was originally discovered from mouse macrophage cell line (Raw264.7), but also showed good selectivity in mouse primary macrophages and human cell line. The staining of **CDg16** is in vesicle in the cell and partially overlapped with lysosome.



CDg16-stained activated macrophages (a) M ϕ (non-activated macrophages) and lipopolysaccharide (LPS) and interferon-gamma (IFN γ) activated M1 (classically activated macrophages) were used to examine the selectivity of CDg16. CDg16 stained only LPS and IFN γ treated Raw264.7 cells. LPS and IFN γ activated peritoneal macrophages (primary macrophages) were also stained by CDg16. (b) CDg16 signals colocalized with LysoTracker, which stains lysosomes

- Related probes: CDnir7

Reference

1. **Imaging inflammation using an activated macrophage probe with Slc18b1 as the activation-selective gating target**, Park, S. J.; Kim, B.; Choi, S.; Balasubramaniam, S.; Lee, S. C.; Lee, J. Y.; Kim, H. S.; Kim, J. Y.; Kim, J. J.; Lee, Y. A.; Kang, N. Y.; Kim, J. S.*; Chang, Y. T.* Nat. Commun. 2019, 10, 1111.