



CDr15

- **Known Property** extracellular DNA (eDNA) probe
- **Application** Immunofluorescence
- **Cell selectivity mechanism:** DOLD (eDNA)

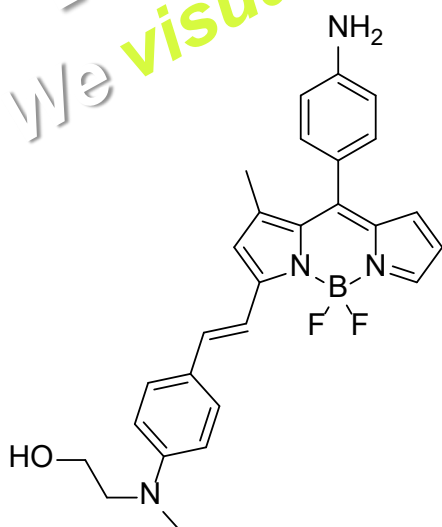
■ General Use Guide

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.



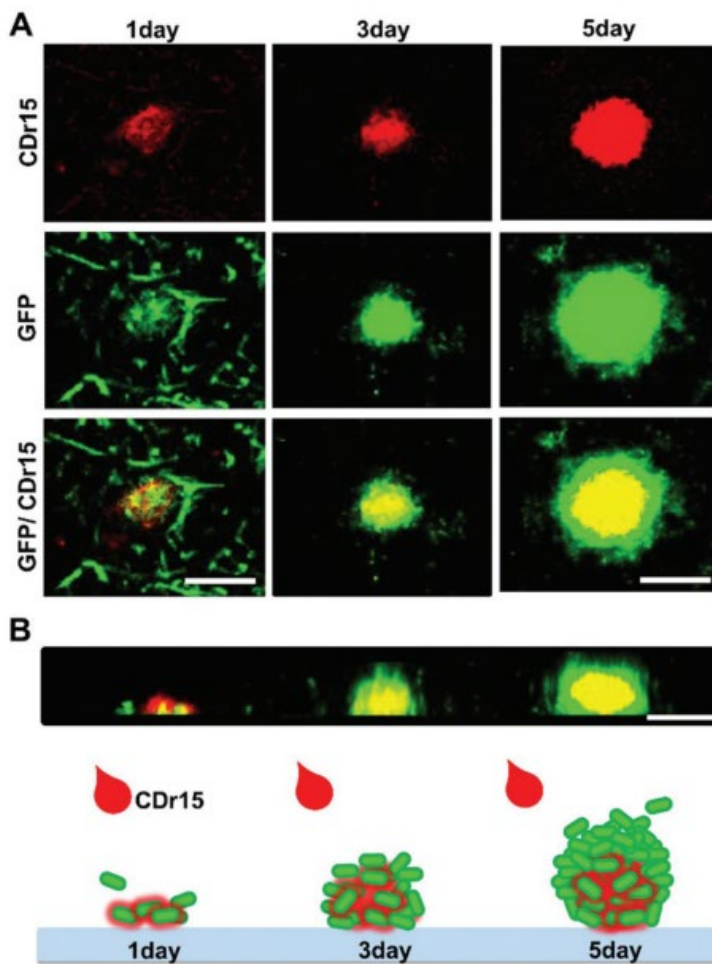
Molecular Weight

472.35 (C₂₇H₂₇BF₂N₄O)

$\lambda_{ex} / \lambda_{em}$

618 / 733 nm

Bacterial biofilm is a self-generated extracellular polymeric substance (EPS), composed of extracellular DNA, polysaccharides, and proteins such as amyloids. **CDr15** (Compound of Designation red 15) is discovered through an unbiased bacterial biofilm screening with cyclic di-GMP as the biofilm turn-on switch.



Localization of **CDr15** on biofilm with different development times. (A) Different localization of **CDr15** on biofilm showed at different forming times. PAO1-GFP; wild type *P. aeruginosa* was cultured in a chamber slide for 1, 3, and 5 days. **CDr15** was applied to biofilm with different development times. The images were taken using a confocal microscope. Scale bars, 10 μm. (B) The **CDr15** stain patterns during the biofilm formation were shown in the schematic figure and vertical sectioned images and (black box). Scale bars, 10 μm

- Related probes: CDy11, CDy14

Reference

1. **Visualizing biofilm by targeting eDNA with long wavelength probe CDr15**, Kwon, H. Y.; Kim, J. Y.; Liu, X.; Lee, J. Y.; Yam, J. K. H.; Dahl Hultqvist, L.; Xu, W.; Rybtke, M.; Tolker-Nielsen, T.; Heo, W.; Kim, J. J.; Kang, N. Y.; Joo, T.; Yang, L.; Park, S. J.*; Givskov, M.*; Chang, Y. T.* *Biomater. Sci.* 2019, 7, 3594-3598.
2. **Validation of CDr15 as a new dye for detecting neutrophil extracellular trap**, Kim, S. J.; Kim, J.; Kim, B.; Lee, W. W.; Liu, X.; Chang, Y. T.; Park, J. W. *Biochem. Biophys. Res. Commun.* 2020, 527, 646-653