



**CDb12**  
**P012B**  
**1  $\mu$ mol**

- **Known Property** mitotic cell probe
- **Application** Immunofluorescence
- **Cell selectivity mechanism:** Unknown, nuclear localization
- **Storage**
  - ① Delivery: Room Temperature
  - ② Dried compound: 4 °C or -20 °C
  - ③ Compound solution: 4 °C or -20 °C

## ■ ORDER



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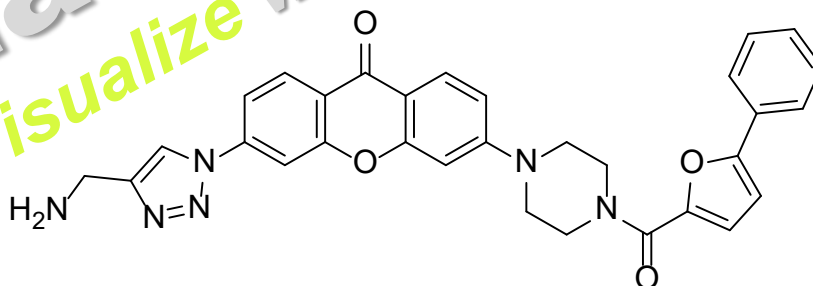
## ■ General Use Guide

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.

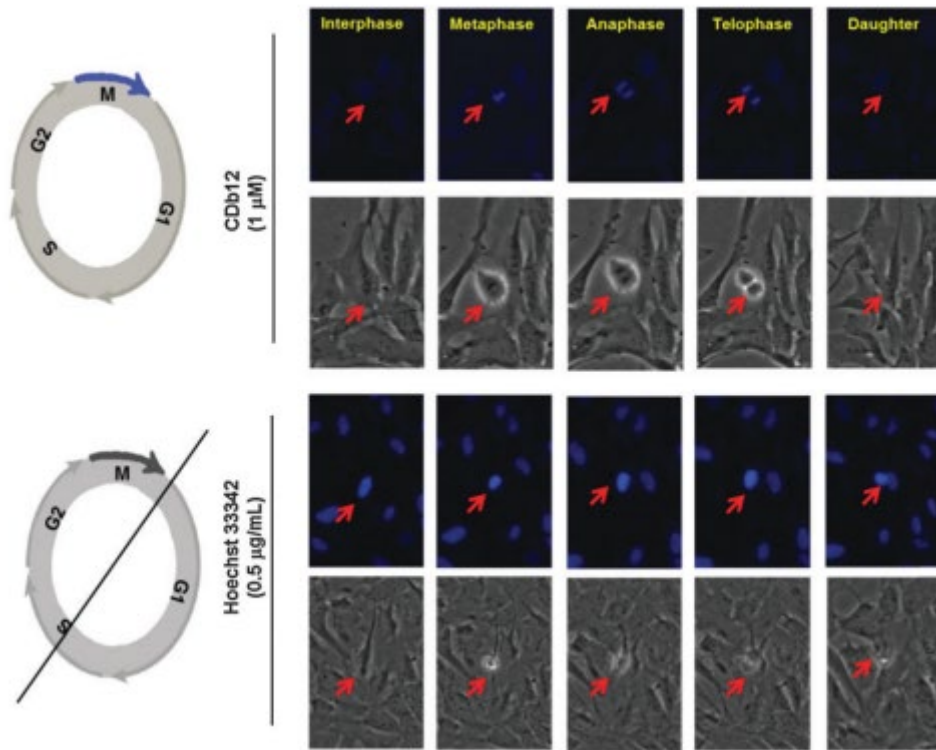
It is recommended to use up the buffer diluted solution within one day. The compound may be decomposed or precipitated out from buffer solution.



Molecular Weight 546.59 (C<sub>31</sub>H<sub>26</sub>N<sub>6</sub>O<sub>4</sub>)

$\lambda_{\text{ex}} / \lambda_{\text{em}}$  365 / 500nm

**CDb12** (Compound of Designation blue 12) was discovered from mitotic cell selective dye screening in RPE1 cells, and stains mitotic cells 7 times stronger than interphase cells. **CDyb12** stains nucleus and increase the fluorescence upon treatment of DNA, but not of RNA. **CDb12** could monitor the dynamic cell division at least for 2 cell division cycle. In contrast, Hoechst treated cells showed cell cycle arrest at M phase, may be due to too strong binding to DNA



Time-lapse imaging of **CDb12**, compared to Hoechst 33342. RPE1 cells were stained with **CDb12** (1  $\mu$ M) or Hoechst 33342 (0.5 mg mL<sup>-1</sup>). The mitosis was monitored for 24 h with frames taken every 3 min on a timelapse imaging system Nikon Biostation IM (Nikon) with DAPI filter (405 nm).

- Related probes: CDy6

## Reference

1. **Development of nucleus staining fluorescent probe for dynamic mitosis imaging in live cells**, Ghosh, K. K.; Jeong, Y. M.; Kang, N. Y.; Lee, J. Y.; Wan, S. Y.; Kim, J. Y.; Yoo, J.; Kim, D.; Kim, Y. K.\*; Chang, Y. T.\* Chem. Commun. 2015, 51, 9336-9338.