CDy5
P005
1 μmol

■ **Known Property** neural stem cells dye

■ **Application** Immunofluorescence

■ **Cell selectivity mechanism:** POLD (acid ceramidase)

■ **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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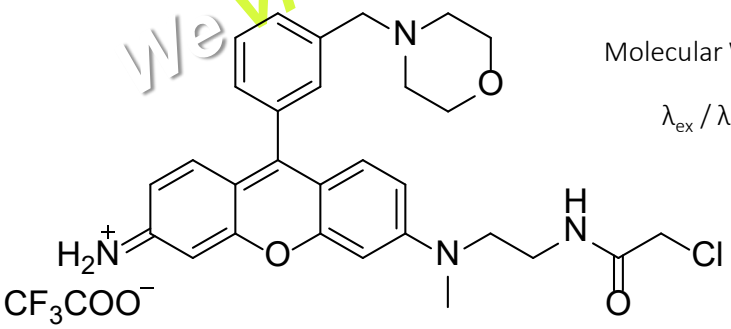
■ General Use Guide

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

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

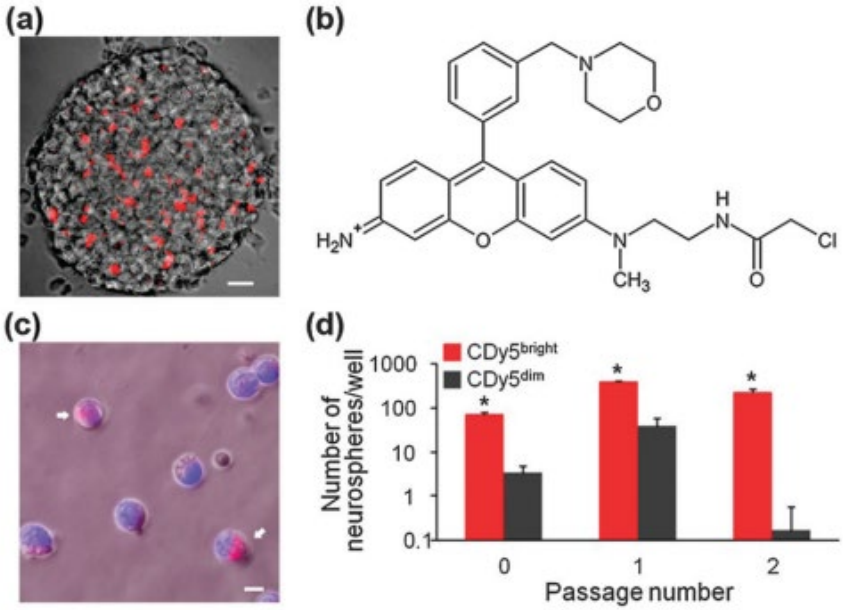
Working concentrations for specific applications should be determined by the investigator.

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	633.07 ($C_{31}H_{32}ClF_3N_4O_5$)
λ_{ex} / λ_{em}	530 / 575 nm

CDy5 selectively stains neural stem cells in neurosphere. In symmetric division, two identical daughter cells were visualized by **CDy5**. In asymmetric division, only small stem cell is fluorescently labeled and the other bigger differentiated cell was not stained by **CDy5**. The binding target of **CDy5** is acid ceramidase



(a) Confocal fluorescence micrograph (taken using A1R+ si, Nikon) of a **CDy5**-stained neuro sphere fixed in paraformaldehyde. Scale bar, 10 μm. (b) Chemical structure of **CDy5.** (c) Epifluorescence micrograph of living single cells dissociated fromCDy5-stainedneurospheres.**CDy5**-stainedcells are marked by white arrows. Scale bar, 10μm.(d) Neuro sphere assay of FACS sortedCDy5bright and **CDy5** dim cells. Data represent mean SD. * $p < 0.01$, Student's t-test.

- Related probes: CDy1, CDr3

Reference

1. **A fluorescent probe for imaging symmetric and asymmetric cell division in neurosphere formation,** Yun, S. W.; Leong, C.; Bi, X.; Ha, H. H.; Yu, Y. H.; Tan, Y. L.; Narayanan, G.; Sankaran, S.; Kim, J. Y.; Hariharan, S.; Ahmed, S.*; Chang, Y. T.* Chem. Commun. 2014, 50, 7492-7494.