CDy9
P009
1 μmol

■ **Known Property** mouse embryonic stem cell probe

■ **Application** Immunofluorescence

■ **Cell selectivity mechanism:** GOLD (SLC13A5)

■ **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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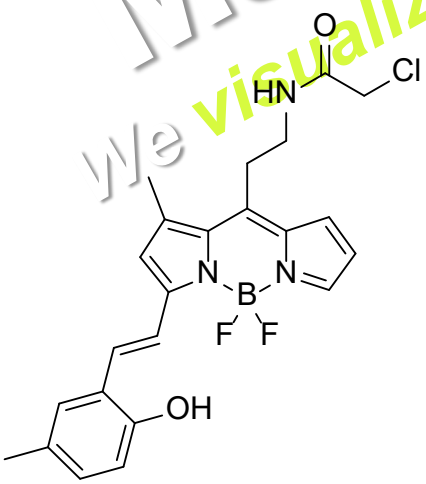
■ General Use Guide

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

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

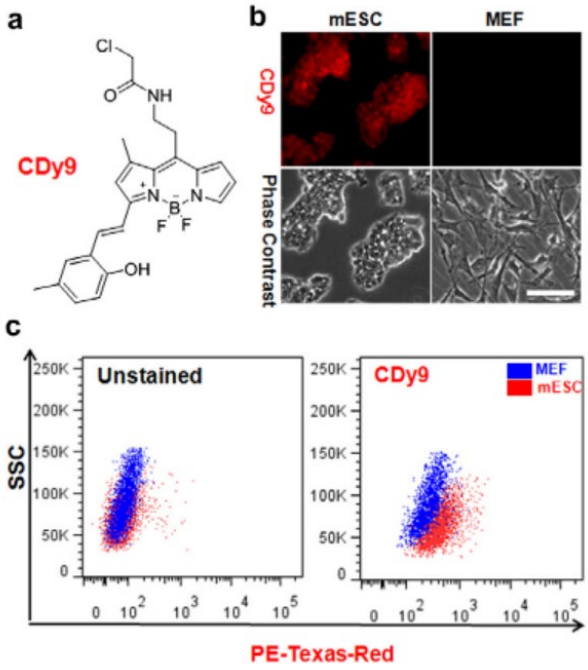
Working concentrations for specific applications should be determined by the investigator.

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	457.71 ($C_{23}H_{23}BClF_2N_3O_2$)
λ_{ex} / λ_{em}	563 / 578 nm

CDy9 (Compound of Designation yellow 9) is a highly selective mouse embryonic stem cell (mES) probe. The selectivity of **CDy9** was reduced when the chloroacetyl group was removed, while acetyl derivative maintained the selectivity.



CDy9 is a novel and versatile mESC-specific fluorescent probe. (a)Chemical structure of **CDy9.** (b) **CDy9** selectively stains mESC over MEF. Both mESC and MEF were incubated with 1 μM CDy9 and imaged under the fluorescence microscope after 1 h. Scale bar: 25μm. (c) Flow cytometry analysis of mESC and MEF after incubation with **CDy9**. The fluorescence intensity of mESC upon treatment with **CDy9** is brighter than in MEF (right dot plot) and in unstained mESC (left dot plot).

- Related probes: CDy1, CDr3, CDb8

Reference

1. **A highly selective fluorescent probe for direct detection and isolation of mouse embryonic stem cells,** Chandran, Y.; Kang, N. Y.; Park, S. J.; Husen, A. S.; Kim, J. Y.; Sahu, S.; Su, D.; Lee, J.; Vendrell, M.*; Chang, Y. T.* Bioorg. Med. Chem. Lett. 2015, 25, 4862-4865.
2. **A fluorescent chemical probe CDy9 selectively stains and enables the isolation of live naïve mouse embryonic stem cells,** Cho, S. J.; Kim, K. T.; Kim, J. S.; Kwon, O. S.; Go, Y. H.; Kang, N. Y.; Heo, H.; Kim, M. R.; Han, D. W.; Moon, S. H.; Chang, Y. T.*; Cha, H. J.* Biomaterials 2018, 180, 12-23.