TP-alpha
P026
1 μmol

■ **Known Property** **pancreatic alpha cell**

■ **Application** Immunofluorescence and 3D imaging of live alpha cells using two photon microscopy

■ **Cell selectivity mechanism:** POLD (glucagon)

■ **Storage**
① Delivery: Room Temperature
② Dried compound: 4 °C or -20 °C
③ Compound solution: 4 °C or -20 °C

■ ORDER

SenPro
order@senprobe.com
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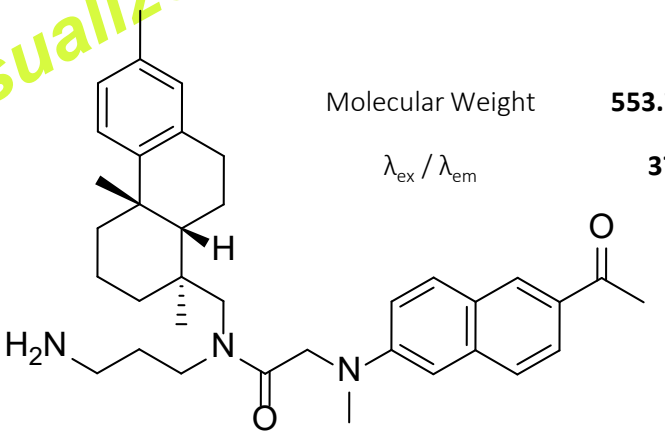
■ General Use Guide

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.

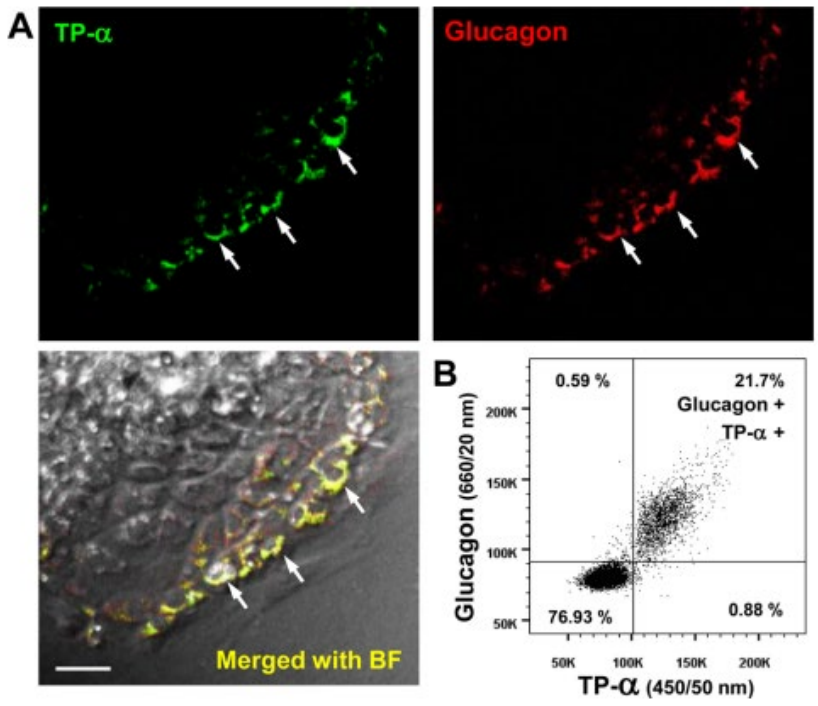
It is recommended to use up the buffer diluted solution within one day. The compound may be decomposed or precipitated out from buffer solution.



Molecular Weight **553.79** ($C_{36}H_{47}N_3O_2$)

λ_{ex} / λ_{em} **370 / 510 nm**

TP-alpha (Two Photon alpha cell probe) was discovered from “two photon green fluorescence library” by cell-based screening. TP-alpha is a pancreatic alpha cell selective probe over beta cell or acinar cell. **TP-alpha** showed dose dependent fluorescence increase upon treatment of glucagon, with low response to insulin or other proteins.



Antibody confirmation of TP-α selectivity by imaging and flow-cytometry. (A) Cultured dissociated islets stained with 1 µM TPα (in green) followed by immunostaining with glucagon antibody (in red). Merged image demonstrates the TP-α stained cells to be glucagon positive alpha cells (white arrow). Scale bar is 50 µm. (B) Dual parametric dot plot for TP-α and glucagon antibody. About 17 000 islet cell counted.

- Related probes: Glucagon yellow

Reference

1. **Glucagon-secreting alpha cell selective two-photon fluorescent probe TP-α: for live pancreatic islet imaging,** Agrawalla, B. K.; Chandran, Y.; Phue, W. H.; Lee, S. C.; Jeong, Y. M.; Wan, S. Y.; Kang, N. Y.*; Chang, Y. T.* J. Am. Chem. Soc. 2015, 137, 5355-5362.