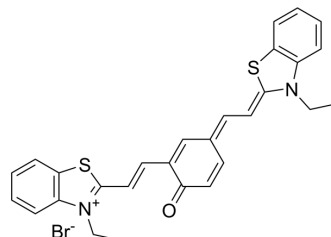


## BTCy

<b>Cat. No.:</b>	HY-152102
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>25</sub> BrN <sub>2</sub> OS <sub>2</sub>
<b>Molecular Weight:</b>	549.54
<b>Target:</b>	Fluorescent Dye
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



## BIOLOGICAL ACTIVITY

<b>Description</b>	BTCy is a near-infrared (NIR) fluorescence probe with polarity-responsive and cell plasma membrane-targeting properties. BTCy can be used for in vivo imaging of tumor tissue ( $\lambda_{ex} = 561 \text{ nm}$ , $\lambda_{em} = 600\text{-}700 \text{ nm}$ ) <sup>[1]</sup> .
<b>In Vitro</b>	<p>BTCy (0-50 <math>\mu\text{M}</math>; 24 h) has low cytotoxicity and is biocompatible for living cells<sup>[1]</sup>. BTCy exhibits good fluorescence stability and is able to detect the polarity change selectively<sup>[1]</sup>.</p> <p>BTCy (10 <math>\mu\text{M}</math>) stains HeLa and HepG2 cells. The cell plasma membrane is specifically and strongly lit up after being stained for 0.5–5 h. The fluorescence intensity of BTCy on the cell plasma membrane shows slight reduction after 2 h<sup>[1]</sup>.</p> <p>BTCy (0.1-10 <math>\mu\text{M}</math>; 30 min) stain shows specific fluorescence on the cell plasma membrane even at a low concentration at 100 nM in HeLa cells<sup>[1]</sup>.</p> <p>BTCy (0.1-10 <math>\mu\text{M}</math>; 30 min) can be used for monitoring cell plasma membrane polarity variation during the ferroptosis process<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
<b>In Vivo</b>	<p>BTCy (0.5 mg/mL; 25 <math>\mu\text{L}</math>; in situ injection) presents a significantly strong and long-time sustained fluorescence signal in the tumor area compared with the normal tissue in the 4T1-tumor-bearing mice<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

## REFERENCES

[1]. Liu J, et al. Monitoring Cell Plasma Membrane Polarity by a NIR Fluorescence Probe with Unexpected Cell Plasma Membrane-Targeting Ability. ACS Omega. 2022 Dec 9;7(50):46891-46899.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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