



# SZABO SCANDIC

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- Expressversand

### SZABO-SCANDIC HandelsgmbH

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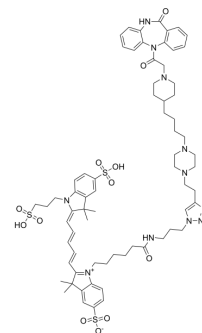
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## DIBA-Cy5

Cat. No.:	HY-151801
Molecular Formula:	C <sub>69</sub> H <sub>89</sub> N <sub>11</sub> O <sub>12</sub> S <sub>3</sub>
Molecular Weight:	1360.71
Target:	mAChR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



## BIOLOGICAL ACTIVITY

<b>Description</b>	DIBA-Cy5 is a fluorescent DIBA antagonist made up be DIBA-alkyne binding Cyanine5 fluorophores (Cy5) and polyethylene glycol (PEG) biomolecules. DIBA-Cy5 can serve as a fluorescent ligand, suitable for probe attachment through click chemistry. DIBA-Cy5 exerts a high binding affinity to type-2 mAChR (M2R) with the K <sub>d</sub> value of 1.80 nM, can directly stain M2R receptors in the sinoatrial node of a mouse heart <sup>[1]</sup> .	
<b>IC<sub>50</sub> &amp; Target</b>	mAChR2 1.80 nM (Kd)	mAChR1 104.5 nM (Kd)
<b>In Vitro</b>	<p>DIBA-Cy5 (0.01 nM-1 mM; 5 h) shows selective binding property for type-2 mAChR (M<sub>2</sub>R) over M<sub>1</sub>R, with K<sub>d</sub> of 1.08 nM and 104.5 nM, respectively<sup>[1]</sup>.</p> <p>DIBA-Cy5 (10 nM; 3 h) exerts the competitive binding mode with orthosteric antagonist <a href="#">Atropine</a> (HY-B1205)/allosteric modulator <a href="#">LY2119620</a> (HY-15885), indicating a dualsteric binding mode of the DIBA-type antagonist to M2R<sup>[1]</sup>.</p> <p>DIBA-Cy5 (50 nM; 16 h) results direct staining to M2R receptors in the sinoatrial node of a mouse heart. DIBA-Cy5 can be used binding assays that screen compounds for M2R as the receptor target<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	

## REFERENCES

[1]. Yang H, et al. Click Chemistry-Enabled Conjugation Strategy for Producing Dibenzodiazepinone-Type Fluorescent Probes To Target M2 Acetylcholine Receptors. *Bioconjug Chem.* 2022 Nov 3.

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

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