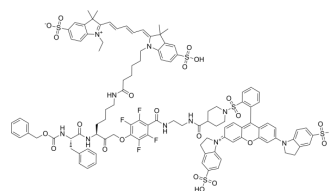


BMV109

Cat. No.:	HY-149931
CAS No.:	1458731-58-2
Molecular Formula:	C ₁₀₇ H ₁₀₈ F ₄ N ₁₀ O ₂₃ S ₅
Molecular Weight:	2138.37
Target:	Fluorescent Dye
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	BMV109 is a quenched probe that becomes fluorescent when cleaved and covalently bound by active cathepsin proteases. BMV109 can be exploited for tumor imaging ^{[1][2]} .								
In Vitro	BMV109 (compound 8; 0.05 μM, 0.1 μM, 0.5 μM, 1 μM, 5 μM) labels all target cysteine cathepsins (B, S, L, X) with equal intensity in living RAW cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
In Vivo	BMV109 (compound 8; 20 nmol; i.v.) achieves tumor-specific fluorescence signal in a mouse model of breast cancer ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
	<table border="1"> <tr> <td>Animal Model:</td> <td>Balb/c mice bearing 4T1 cells^[1]</td> </tr> <tr> <td>Dosage:</td> <td>20 nmol</td> </tr> <tr> <td>Administration:</td> <td>Tail vein</td> </tr> <tr> <td>Result:</td> <td>Robust tumor specific activation of fluorescence with high overall intensity could be observed.</td> </tr> </table>	Animal Model:	Balb/c mice bearing 4T1 cells ^[1]	Dosage:	20 nmol	Administration:	Tail vein	Result:	Robust tumor specific activation of fluorescence with high overall intensity could be observed.
Animal Model:	Balb/c mice bearing 4T1 cells ^[1]								
Dosage:	20 nmol								
Administration:	Tail vein								
Result:	Robust tumor specific activation of fluorescence with high overall intensity could be observed.								

REFERENCES

- [1]. Martijn Verdoes, et al. Improved quenched fluorescent probe for imaging of cysteine cathepsin activity. *J Am Chem Soc.* 2013 Oct 2;135(39):14726-30.
- [2]. Steven Sensarn, et al. A Clinical Wide-Field Fluorescence Endoscopic Device for Molecular Imaging Demonstrating Cathepsin Protease Activity in Colon Cancer. *Mol Imaging Biol.* 2016 Dec;18(6):820-829.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA