

MV151

## Chemical Properties

CAS No. : 945611-88-1

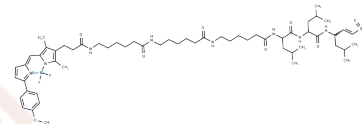
Formula: C59H91BF2N8O9S

Molecular Weight: 1137.28

Storage: Keep away from direct sunlight, Keep away from moisture, Store at low temperature

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	MV151 is a fluorescent dye and a proteasome inhibitor with cell permeability, capable of specifically targeting all active subunits of proteasomes and immunoproteasomes in living cells. Used for in vitro and in vivo proteasome labeling and functional studies.
Targets(IC50)	Others
In vitro	<p><b>Methods:</b> In EL-4 and HeLa cell lysates, MV151 was incubated at concentrations from 10 nM to 10 <math>\mu</math>M for 1 hour, followed by proteasome labeling and gel detection.</p> <p><b>Results:</b> MV151 uniformly labeled all active subunits (<math>\beta</math>1, <math>\beta</math>2, <math>\beta</math>5), with detection possible at 10 nM and saturation at 1 <math>\mu</math>M, showing sensitivity more than 3-fold higher than silver staining.[1]</p>
In vivo	<p><b>Methods:</b> In C57Bl/6 and UbG76V-GFP transgenic mice, a single intraperitoneal injection of MV151 (20 <math>\mu</math>mol/kg, solvent 60% DMSO/40% PBS) was administered, and detection was performed 24 h later.</p> <p><b>Results:</b> Significant fluorescent labeling was observed in the liver and pancreas, consistent with GFP reporter accumulation, confirming that MV151 effectively labels and inhibits the proteasome in vivo.[1]</p>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	0.8793 mL	4.3965 mL	8.7929 mL
5 mM	0.1759 mL	0.8793 mL	1.7586 mL
10 mM	0.0879 mL	0.4396 mL	0.8793 mL
50 mM	0.0176 mL	0.0879 mL	0.1759 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Verdoes, Martijn et al. A fluorescent broad-spectrum proteasome inhibitor for labeling proteasomes in vitro and in vivo. Chemistry & biology vol. 13,11 (2006): 1217-26.

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