Lumiprobe Corporation
115 Airport Dr Suite 160
Westminster, Maryland 21157
USA
Phone: +1 888 973 6353
Fax: +1 888 973 6354
Email: order@lumiprobe.com

MemBlaze® 488, green fluorescent membrane probe

http://www.lumiprobe.com/p/memblaze-488

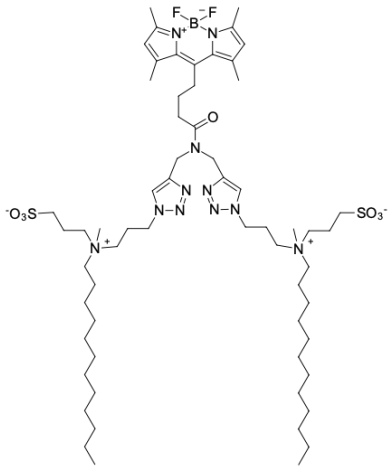
MemBlaze® 488 dye is a bright and photostable green-fluorescent membrane probe, a member of the MEMBRIGHT® family [1], designed for rapid and selective staining of lipid bilayers in live or fixed cells.

The dye is based on an environment-sensitive fluorophore that is weakly fluorescent in aqueous media but becomes brightly emissive upon insertion into hydrophobic membrane environments. This property enables high signal-to-background ratios without requiring washing steps.

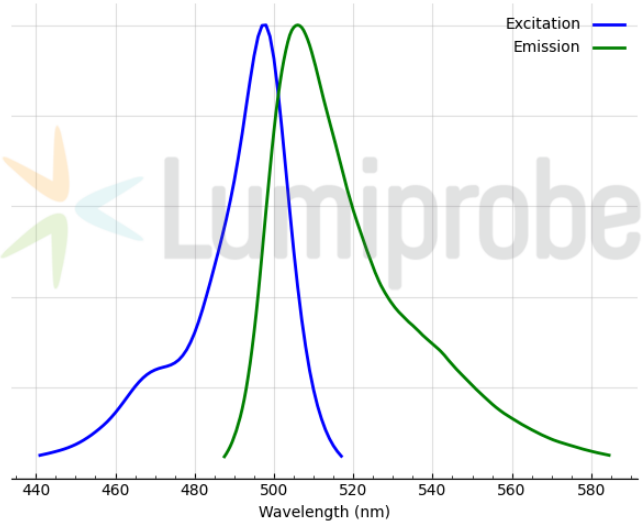
MemBlaze 488 integrates non-covalently into lipid bilayers via two amphiphilic zwitterion moieties and does not require chemical modification of membrane components. Its staining is fast (typically seconds to minutes) and compatible with prolonged live-cell imaging, allowing real-time visualization of membrane dynamics, endocytosis, and vesicular trafficking.

The dye is optimized for standard FITC/GFP filter sets (excitation ~488 nm, emission ~510-530 nm) and can be readily combined with other fluorescent probes for multicolor imaging using confocal, widefield, and super-resolution microscopy applications.

[1] Bioconjugate Chem. 2019, 30, 1, 192–199.



Structure of MemBlaze 488



Excitation and emission spectra of MemBlaze 488

General properties

Appearance:	light orange solid
Molecular weight:	1218.51
Molecular formula:	$C_{61}H_{106}BF_2N_{11}O_7S_2$
Solubility:	DMSO, DMF
Quality control:	NMR ^1H and HPLC-MS (95+%)
Storage conditions:	24 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

Spectral properties

Excitation/absorption maximum, nm:	498
ε, $L \cdot mol^{-1} \cdot cm^{-1}$:	86000
Emission maximum, nm:	506