

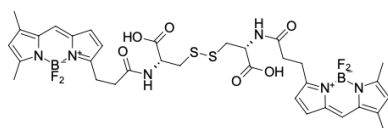
## BDP® FL L-Cystine

<http://www.lumiprobe.com/p/bdp-fl-cystine>

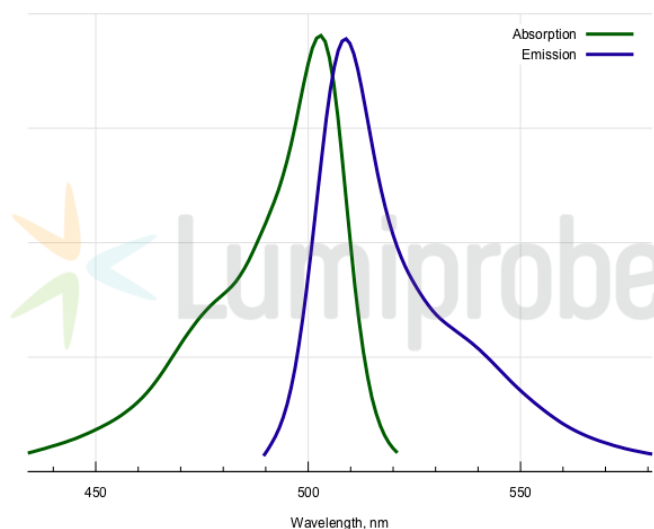
BDP FL L-cystine is a symmetric disulfide for reversible thiol-specific labeling of thiolated oligonucleotides, proteins, and cells.

BDP FL L-cystine consists of two BDP FL molecules connected via a disulfide bridge between two cysteine residues. In the dimeric disulfide state, the fluorescence of the dye is quenched.

Like other symmetric disulfides, BDP FL L-cystine undergoes a thiol-disulfide interchange reaction. Reduction of the disulfide bridge releases the monomeric dye molecule and results in fluorescence in the green region of the spectrum.



**Structure of BDP FL L-Cystine**



**Absorption and emission spectra of BDP FL**

### General properties

Appearance: orange powder  
Molecular weight: 788.46  
Molecular formula:  $C_{44}H_{40}B_2F_{10}N_4O_6S_2$   
IUPAC name: (2R)-3-[(2R)-2-carboxy-2-[3-(2,2-difluoro-10,12-dimethyl-1-aza-3-azonia-2-boranidatricyclo[7.3.0.0.3,7]dodeca-3,5,7,9,11-pentaen-4-yl)propanoylamino]ethyl]disulfanyl]-2-[3-(2,2-difluoro-10,12-dimethyl-1-aza-3-azonia-2-boranidatricyclo[7.3.0.0.3,7]dodeca-3,5,7,9,11-pentaen-4-yl)propanoylamino]propanoic acid  
Quality control: NMR <sup>1</sup>H and HPLC-MS (95+%)  
Storage conditions: 24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate. Avoid prolonged exposure to light.  
Legal statement: Product is offered and sold for research purposes only. Product is not tested for safety and efficacy in food, drug, medical device, cosmetic, no express or implied authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, for humans or animals or for commercial purposes.

### Spectral properties

Excitation/absorption 503 maximum, nm:  
 $\epsilon$ , L·mol<sup>-1</sup>·cm<sup>-1</sup>: 92000  
Emission maximum, 509 nm:  
Fluorescence quantum yield: 0.97  
CF<sub>100</sub>: 0.015  
CF<sub>100</sub>: 0.027