

## Dibromobimane

Catalog number: F-0040

Molecular Formula:  $C_{10}H_{10}Br_2N_2O_2$

MW: 350.0

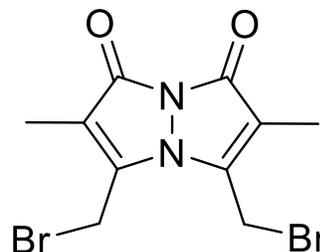
CAS: 68654-25-1

Solubility: DMSO

**Storage and Handling:** Dibromobimane is stable for at least one year when stored as a solid, protected from moisture, at -20 °C. Protect from light

**Background:** Dibromobimane is a thiol reactive protein cross linking reagent that generates a fluorescent product when both of the alkylating groups have reacted with proteins. Dibromobimane has an excitation/ emission spectra of 390/ 450 nm<sup>1</sup>. When reacting with sample add dibromobimane at a final concentration between 1 and 2 mM for 15-60 minutes at 25 °C in the dark<sup>2-4</sup>.

**References:** 1) Mornet, D.; Ue, K.; Morales, M. F. Stabilization of a primary loop in myosin subfragment 1 with a fluorescent crosslinker. *Proc Natl Acad Sci USA* 1985, 82, 1658-62. 2) Konno, K.; Ue, K.; Khoroshev, M.; Martinez, H.; Ray, B.; Morales, M. F. Consequences of placing an intramolecular crosslink in myosin S1. *Proc Natl Acad Sci USA* 2000, 97, 1461-6. 3) Chen, Z.; Akin, B. L.; Stokes, D. L.; Jones, L. R. Cross-linking of C-terminal residues of phospholamban to the Ca<sup>2+</sup> pump of cardiac sarcoplasmic reticulum to probe spatial and functional interactions within the transmembrane domain. *J Biol Chem* 2006, 281, 14163-72. 4) Lindzen, M.; Gottschalk, K. E.; Fuzesi, M.; Garty, H.; Karlsh, S. J. Structural interactions between FXYD proteins and Na<sup>+</sup>,K<sup>+</sup>-ATPase: alpha/beta/FXYD subunit stoichiometry and cross-linking. *J Biol Chem* 2006, 281, 5947-55.



**Hazardous Properties and Cautions:** The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

**Warranty and Disclaimer:** Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

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Technical Data Sheet, Rev 2, 11-5-18 – For research use only. Not intended for diagnostic or therapeutic use.



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