

Dibromobimane

Catalog number: F-0040

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

MW: 350.0

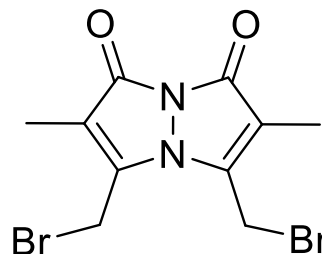
CAS: 68654-25-1

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 nm¹. When reacting with sample add dibromobimane at a final concentration between 1 and 2 mM for 15-60 minutes at 25 °C in the dark²⁻⁴.

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 Ca²⁺ 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⁺,K⁺-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.

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