

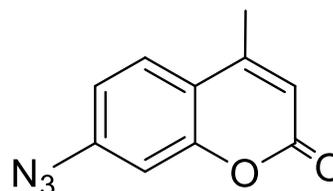
## 7-Azido-4-methylcoumarin (AzMC, Hydrogen Sulfide Detector)

Catalog number: D-0010

Molecular Formula:  $C_{10}H_7N_3O_2$

MW: 201.18

CAS: 95633-27-5



Solubility: DMSO, Water, TRIS buffer. Avoid buffers containing DTT, TCEP, or other thiols.

Storage and Handling: Store dry at  $-20^{\circ}C$ . Stock solutions should be stored frozen ( $-20^{\circ}C$  or below).

**Background:** This novel and selective probe for hydrogen sulfide ( $H_2S$ ), 7-azido-4-methylcoumarin (AzMC), is useful for the monitoring of cystathionine  $\beta$ -synthase (CBS) catalyzed reactions, which plays a critical role in human sulfur metabolism. Deactivated CBS is characterized by high plasma levels of homocysteine and  $H_2S$ , resulting in clinical manifestations of numerous disease states. AzMC, used as a fluorogenic probe and concurrent CBS activity, can be used to select compounds for activation or inhibition of this enzyme, and is suitable for high-throughput screening and the development of potential therapeutics.  $H_2S$  reacts with AzMC forming fluorescent 7-amino-4-methylcoumarin (ex/em: 365/450 nm).

**References:** M.K. Thorson, T. Majtan, J.P. Kraus, A.M. Barrios "Identification of Cystathionine  $\beta$ -Synthase Inhibitors Using a Hydrogen Sulfide Selective Probe." *Angewandte Chemie (Int. ed. Eng.)* DOI: 10.1002/anie.201300841

**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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