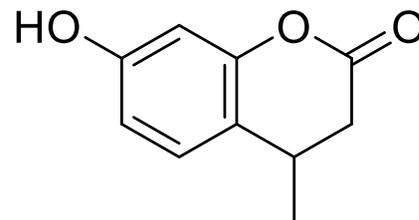


4-Methylumbelliferone (HA Synthase Inhibitor)

Catalog number: JK201388



Molecular Formula: C₁₀H₈O₃

MW: 176.17

CAS: 90-33-5

Alternate Name: β-Methylumbelliferone, 4-MU, 7-Hydroxy-4-methylcoumarin, Hymecromone

Solubility: Insoluble in water. 50 mg/mL in Methanol

Storage and Handling: Store dry at room temperature

Background:

4-Methylumbelliferone (4-MU) is a derivative of umbelliferone which naturally occurs in plants. 4-MU is commonly used as a building block for fluorescence probe synthesis. It has antineoplastic properties and is an approved drug with the name as “hymecromone” for managing biliary spasm in Europe and Asia¹. Recently, it is demonstrated that hyaluronic acid synthesis can be inhibited by 4-MU².

References:

1. Nagy, N.; Kuipers, H. F.; Frymoyer, A. R.; Ishak, H. D.; Bollyky, J. B.; Wight, T. N.; Bollyky, P. L., 4-methylumbelliferone treatment and hyaluronan inhibition as a therapeutic strategy in inflammation, autoimmunity, and cancer. *Front Immunol* **2015**, *6*, 123.
2. Sukowati, C. H. C.; Anfuso, B.; Fiore, E.; Ie, S. I.; Raseni, A.; Vascotto, F.; Avellini, C.; Mazzolini, G.; Tiribelli, C., Hyaluronic acid inhibition by 4-methylumbelliferone reduces the expression of cancer stem cells markers during hepatocarcinogenesis. *Sci Rep* **2019**, *9* (1), 4026.

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.

