

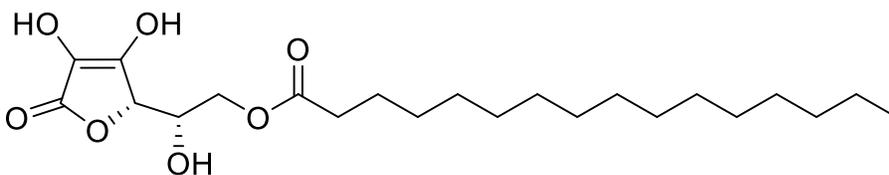
6-O-Palmitoyl-L-ascorbic acid (HAase Inhibitor)

Catalog number: B-0601

Molecular Formula: $C_{22}H_{38}O_7$

MW: 414.53

CAS: 137-66-6



Solubility: EtOH, DMSO > 2 mg/mL, poorly soluble in water

Storage and Handling: Store dry at room temperature. Stock solutions should be stored frozen (-20 °C or below).

Background: Hyaluronidases are a group of enzymes that degrade Hyaluronan (HA), a linear polysaccharide comprised of a repeating disaccharide of N-acetylglucosamine and D-glucuronic acid. HA is involved in many biological processes including structural support, cell migration and tissue turnover. Hyaluronidases are involved in several pathological processes such as bacterial pathogenesis, the spreading of toxins/venoms and cancer progression, making hyaluronidases a potential pharmacological target. 6-O-Palmitoyl-L-ascorbic acid (Vcpal) is a micromolar inhibitor of both bacterial and mammalian hyaluronidases and it is particularly selective for the *Streptococcus agalactiae* enzyme.

References: 1) A. Botzki, *et al.* "L-Ascorbic Acid 6-Hexadecanoate, a Potent Hyaluronidase Inhibitor: X-ray structure and molecular modeling of enzyme-inhibitor complexes" *J. Biol. Chem.*, 2004, *279*, 45990-45997. 2) Spickenreither, M. *et al.* "Novel 6-O-acylated vitamin C derivatives as hyaluronidase inhibitors with selectivity for bacterial lyases" *Bioorg. Med. Chem. Lett.*, 2006, *16*, 5313-5316.

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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