

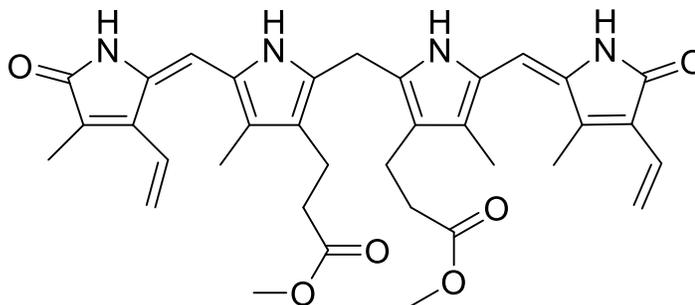
Bilirubin dimethyl ester

Catalog number: F-H110

Molecular Formula: $C_{35}H_{40}N_4O_6$

MW: 612.73

CAS: 19792-68-8



Solubility: DMSO, chloroform

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

Background: Bilirubin dimethyl ester is a natural derivative of bilirubin and is found in normal sera representing an average of 1.75% total sera bilirubin¹. Bilirubin is a water insoluble tetrapyrrole produced from the reduction of biliverdin in a reaction catalyzed by the enzyme biliverdin reductase. Water insoluble bilirubin (also called indirect bilirubin) *in vivo* undergoes glucuronidation in the liver (addition of one or two glucuronic acids through a glycosidic bond) to form the water soluble bilirubin mono or diglucuronide (also called bilirubin conjugate or direct bilirubin). Bilirubin conjugate is excreted from the liver in bile or is converted to urobilinogen and excreted in the urine as urobilin or in the feces as stercobilin. Bilirubin dimethyl ester has been found to be converted to bilirubin conjugate via esterase and glucuronidase activity *in vivo*².

References: 1. Muraca, M.; Blanckaert, N. Liquid-chromatographic assay and identification of mono- and diester conjugates of bilirubin in normal serum. *Clin Chem* 1983, 29, 1767-71.

2. Burchell, B.; Odell, G. B. A rat liver microsomal carboxylesterase and a bilirubin UDP-glucuronyl transferase are responsible for the formation of bilirubin glucuronides from bilirubin dimethyl ester. *FEBS Lett* 1981, 135, 304-8.

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.

