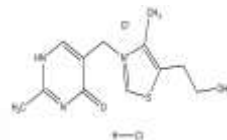


PRODUCT: Oxythiamine Chloride Hydrochloride**ALTERNATE NAME:** 5-(2-Hydroxyethyl)-3-(4-hydroxy-2-methyl-5-pyrimidinylmethyl)-4-methylthiazolium chloride**CATALOG #:** B1046-100, 500, 1000**AMOUNT:** 100 mg, 500 mg, 1 g**STRUCTURE:****MOLECULAR FORMULA:** C₁₂H₁₆ClN₃O₂S.HCl**MOLECULAR WEIGHT:** 338.25**CAS NUMBER:** 614-05-1**APPEARANCE:** White solid**SOLUBILITY:** DMSO (>50 mg/ml)**PURITY:** ≥95% by HPLC**STORAGE:** Store at -20°C. Protect from air and moisture**DESCRIPTION:** Oxythiamine is a thiamine antagonist that acts as a transketolase inhibitor. As transketolase is a crucial enzyme of the pentose phosphate pathway, inhibition of this enzyme causes suppression of the pentose phosphate pathway and thus deprives cells of the metabolic intermediate (glyceraldehyde-3-phosphate) for ATP generation and of the substrates (NADPH, ribose-phosphate) for macromolecule synthesis. This metabolic inhibition seems to be responsible, at least in part, for the significant anticancer activity observed in vitro and in vivo.**REFERENCES:** Comin-Anduix, B., *et al.* (2001). *Eur. J. Biochem.* **268**, 4177-4182**HANDLING:** Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.**RELATED PRODUCTS:**3-Bromopyruvic acid (**B1045**)Oxythiamine Chloride Hydrochloride (**B1046**)6-Aminonicotinamide (**B1047**)2-Deoxy-D-glucose (**B1048**)Lonidamine (**Cat. No. B1058**)**USAGE:** **FOR RESEARCH CH USE ONLY! Not to be used in humans**