

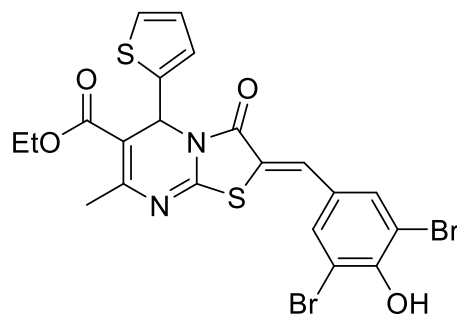
## IspF Inhibitor 1

Catalog number: B-4102

Molecular Formula:  $C_{21}H_{16}Br_2N_2O_4S_2$

MW: 584.30

CAS: 1240789-72-3



Alternate Name: (2Z)-2-(3,5-Dibromo-4-hydroxybenzylidene)-7-methyl-3-oxo-5-(2-thienyl)-2,3-dihydro-5H-[1,3]-thiazolo[3,2-a]pyrimidine-6-carboxylate

Solubility: DMSO,  $CHCl_3$ :MeOH (9:1), >5 mg/mL

Storage and Handling: Store dry at 4 °C. Stock solutions should be stored frozen (-20 °C or below).

Background: The non-mevalonate, or MEP, pathway for isoprenoid biosynthesis is essential in gram-negative, some gram-positive bacteria, plants, and protozoa making it an attractive pathway to target for antibiotics since mammals use the mevalonate pathway to synthesize isoprenoids. IspF is the fourth step in the pathway and converts diphosphocytidyl-2-methylerythritol 2-phosphate into 2-methylerythritol 2,4-cyclodiphosphate (cMEPP). IspF inhibitor 1 (compound 3 in Geise *et al.*) has low micromolar activity ( $IC_{50} = 6.1-32 \mu M$ ) against the recombinant enzymes and inhibits the growth of *P. falciparum* in a red blood cell assay.

References: J.G. Geist *et al.* "Thiazolopyrimidine Inhibitors of 2-Methylerythritol 2,4-Cyclodiphosphate Synthase (IspF) from *Mycobacterium tuberculosis* and *Plasmodium falciparum*" *ChemMedChem* 2010, 5, 1092-1101.

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.

