
Product Data Sheet

Product Name: ML-356
Cat. No.: GC14316

Chemical Properties

Cas. No. 1808260-45-8

Chemical Name 2-ethyl-N-[4-[4-(4-morpholinylsulfonyl)phenyl]-2-thiazolyl]-butanamide

SMILES O=S(C1=CC=C(C2=CSC(NC(C(CC)CC)=O)=N2)C=C1)(N3CCOCC3)=O

Formula $C_{19}H_{25}N_3O_4S_2$ M.Wt 423.5

Solubility ≤ 0.5 mg/ml in ethanol; 20mg/ml in DMSO; 10mg/ml in dimethyl formamide Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

ML-356 is an inhibitor of the thioesterase domain of fatty acid synthase with IC50 value of 334 nM.

Fatty acid synthase (FAS) is a multi-enzyme protein that catalyzes fatty acid synthesis, fatty acids are related to energy production and storage, cellular structure ,hormones biosynthesis .A number of subsequent immunohistochemically analyses showed that increased expression of FAS is a hallmark of all major cancers including those of the prostate, the breast, the colon, and the ovaries.

In prostate cancer PC-3 cells, ML-356 blocked palmitate (the final product of fatty acids synthesis) biosynthesis, indicating that ML-356 has potential to block tumor growth in vivo because FAS is up-regulated in all the major solid tumors.

Reference:

Caution: Product has not been fully validated for medical applications. For research use only.

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1. R. Ardecky, M. P. Hedrick, P. Gosalia, et al. Selective inhibitors of FAS-TE. Probe Reports from the NIH Molecular Libraries Program (2010).

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