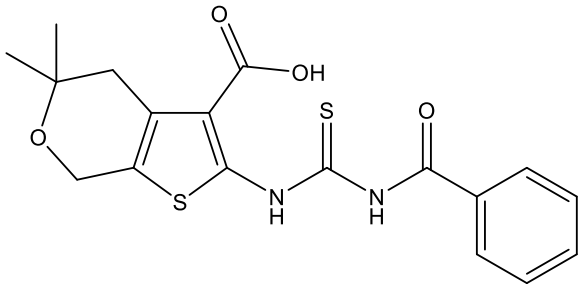
Catalog # 10-5401
CID1067700

CAS# 314042-01-8

2-[[(benzoylamino)thioxomethyl]amino]-4,7-dihydro-5,5-dimethyl-5H-thieno[2,3-c]pyran-3-carboxylic acid

ML282

Lot # X109736



A specific competitive inhibitor of nucleotide binding to Rab7, an endosome-localized small GTPase.[1] It interferes with the Rab7-RILP interaction, locking the GTPase in an inactive conformation.[2] Impairs B cell class switching and plasma cell survival dampening, the pathogenic autoantibody response in lupus.[3] Inhibits the Arf-like small GTPase Arl8b, blocking cellular egress of ß-coronaviruses (SARS-CoV-2) which utilize a lysosomal exocytosis pathway.[4]

1) Agola *et al*. (2012), *A competitive nucleotide binding inhibitor: in vitro characterization of Rab7 GTPase inhibition*; ACS Chem. Biol., **7** 1095
2) Agola *et al*. (2015), *Quantitative bead-based flow cytometry for assaying Rab7 GTPase interaction with the Rab-interacting lysosomal protein (RILP) effector protein*; Methods Mol. Biol., **1298** 331
3) Lam *et al*. (2016), *Small Molecule Inhibition of Rab7 Impairs B Cell Switching and Plasma Cell Survival To Dampen the Autoantibody response in Murine Lupus*; J.Immunol.., **197** 3792
4) Ghosh *et al.* (2020), *ß-Coronaviruses Use Lysosomes for Egress Instead of the Biosynthetic Secretory Pathway*; Cell, **183** 1520

PHYSICAL DATA

Molecular Weight:	390.48
Molecular Formula:	$C_{18}H_{18}N_2O_4S_2$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 40 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase.
	Solutions in DMSO may be stored at -20°C for up to 2 months.

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