

Product datasheet

KU-55933, competitive ATM kinase inhibitor ab120637

[24 References](#) [2 Images](#)

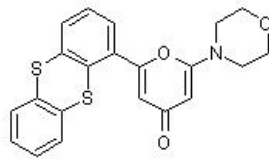
Overview

Product name	KU-55933, competitive ATM kinase inhibitor
Description	Potent, selective, competitive ATM kinase inhibitor
Biological description	Potent, selective and competitive ATM kinase inhibitor. IC ₅₀ values are 12.9 (ATM), 2000 (DNA-PK), 9300 (mTOR), 16600 (PI3K), >100000 (ATR) and >100000 nM (PI4K). Sensitizes cells to ionizing radiation and chemotherapeutics. Blocks Akt phosphorylation, induces G1 cell cycle arrest and induces apoptosis in breast and prostate cell lines.

Purity > 99%

CAS Number 587871-26-9

Chemical structure



Properties

Chemical name	2-(4-Morpholinyl)-6-(1-thianthrenyl)-4H-pyran-4-one
Molecular weight	395.49
Molecular formula	C ₂₁ H ₁₇ NO ₃ S ₂
PubChem identifier	5278396
Storage instructions	Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.
Solubility overview	Soluble in DMSO to 100 mM and in ethanol to 50 mM
Handling	Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour. Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.

SMILES

C1COCCN1C2=CC(=O)C=C(O2)C3=C4C(=CC=C3)SC5=CC=CC=C5S4

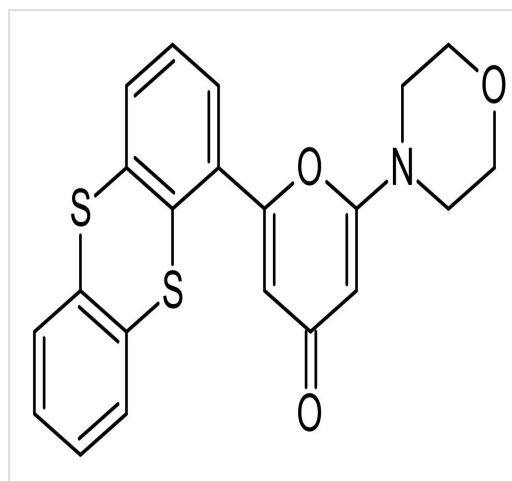
Source

Synthetic

Applications**The Abpromise guarantee**Our **Abpromise guarantee** covers the use of ab120637 in the following tested applications.

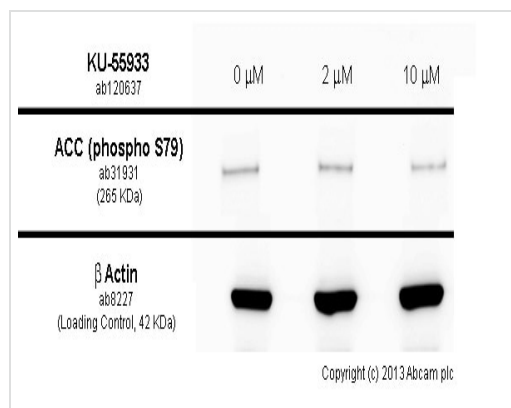
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Functional Studies		Use at an assay dependent concentration.

Images

2D chemical structure image of ab120637, KU-55933, competitive ATM kinase inhibitor

Chemical Structure - KU-55933, competitive ATM kinase inhibitor (ab120637)



Functional Studies - KU-55933, competitive ATM kinase inhibitor (ab120637)

HepG2 cells were incubated at 37°C for 60 minutes with vehicle control (0 μM) and different concentrations of KU-55933 (ab120637). Decreased expression of Acetyl Coenzyme A Carboxylase (phospho S79) (**ab31931**) in HepG2 cells correlates with an increase in KU-55933 concentration, as described in literature.

Whole cell lysates were prepared with RIPA buffer (containing protease inhibitors and sodium orthovanadate), 10 μg of each were loaded on the gel and the WB was run under reducing conditions. After transfer the membrane was blocked for an hour using 5% BSA before being incubated with **ab31931** at 1 μg /ml and **ab8227** at 1 μg /ml overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP (**ab97051**) at 1/10000 dilution and visualised using ECL development solution.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

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