Print Date: Feb 20th 2023

Certificate of Analysis

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Product Name: **10058-F4** **Catalog No.: 4406** **Batch No.: 1**

CAS Number: 403811-55-2

IUPAC Name: 5-[(4-Ethylphenyl)methylene]-2-thioxo-4-thiazolidinone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{12}H_{11}NOS_2$

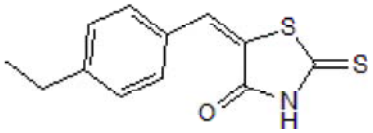
Batch Molecular Weight: 249.35

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM
ethanol to 20 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	57.8	4.45	5.62
Found	57.61	4.58	5.65

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Description:

10058-F4 is a cell permeable c-Myc-Max dimerization inhibitor. Inhibits proliferation, induces apoptosis and arrests cells in G_0/G_1 in rat1a-c-Myc cells. Also reduces tumor growth in vivo. In lymphoma cells, 10058-F4 decreases glucose uptake and expression of glycolysis-associated genes and reduces cell viability.

Physical and Chemical Properties:

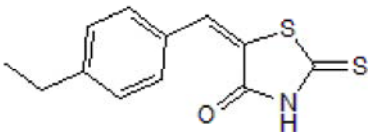
Batch Molecular Formula: $C_{12}H_{11}NOS_2$

Batch Molecular Weight: 249.35

Physical Appearance: Yellow solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Broecker-Preuss *et al* (2017) Regulation of glucose uptake in lymphoma cell lines by c-MYC- and PI3K-dependent signaling pathways and impact of glycolytic pathways on cell viability J.Transl.Med. ***15*** 158. PMID: 28724379.

Guo *et al* (2009) Efficacy, pharmacokinetics, tisssue distribution, and metabolism of the Myc-Max disruptor, 10058-F4 [Z,E] -5-[4-ethylbenzylidine]-2-thioxothiazolidin-4-one, in mice. Cancer Chemother.Pharmacol. ***63*** 615. PMID: 18509642.

Huang *et al* (2006) A small-molecule c-Myc inhibitor, 10058-F4, induces cell-cycle arrest, apoptosis, and myeloid differentiation of human acute myeloid leukemia. Exp.Hematol. ***34*** 1480. PMID: 17046567.