bio-techne
TOCRIS

Print Date: Mar 31st 2025

Certificate of Analysis

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Product Name: **KC7F2** **Catalog No.: 4324** **Batch No.: 1**

CAS Number: 927822-86-4

IUPAC Name: *N*,*N*'-(Dithiodi-2,1-ethanediyl)*bis*[2,5-dichlorobenzenesulfonamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{16}H_{16}Cl_4N_2O_4S_4$

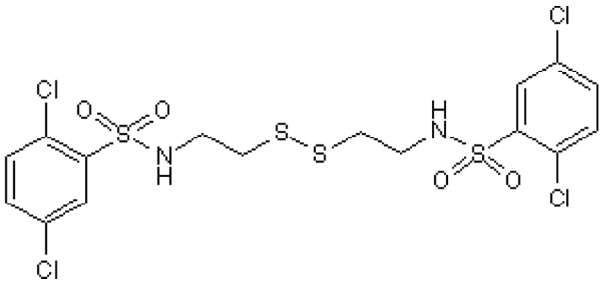
Batch Molecular Weight: 570.38

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.45 (Ethyl acetate:Petroleum ether [2:3])

HPLC: Shows 98.4% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Sulfur
Theoretical	33.69	2.83	4.91	22.49
Found	34.02	2.94	4.83	22.67

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Description:

KC7F2 is an inhibitor of HIF-1α. Thought to act via down-regulation of HIF-1α protein synthesis; reduces phosphorylation of eIF4E binding protein 1 (4EBP1) and p70 S6K in hypoxic conditions. Also blocks hypoxia-induced HIF-1α accumulation in a range of human cancer cell lines. Inhibits the expression of HIF target genes, such as carbonic anhydrase IX and MMP2.

Physical and Chemical Properties:

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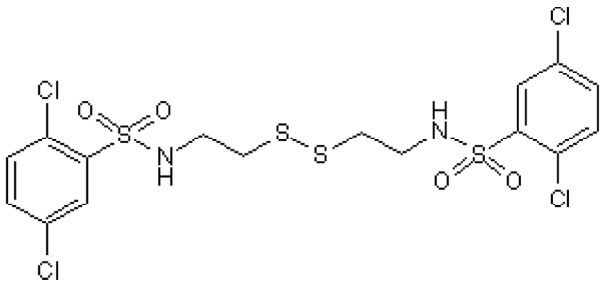
Batch Molecular Weight: 570.38

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Koh *et al* (2009) Inhibiting the hypoxia response for cancer therapy: the new kid on the block. Clin.Cancer Res. ***15*** 5945. PMID: 19789327.

Narita *et al* (2009) Identification of a novel small molecule HIF-1α translation inhibitor. Clin.Cancer Res. ***15*** 6128. PMID: 19789328.