

Certificate of Analysis

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Product Name: Sulfasalazine

Catalog No.: 4935

Batch No.: 1

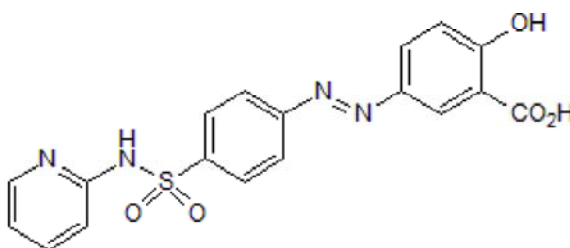
CAS Number: 599-79-1

EC Number: 209-974-3

IUPAC Name: 5-[[4-(2-Pyridylsulfamoyl)phenyl]azo]salicylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₄N₄O₅S
Batch Molecular Weight: 398.39
Physical Appearance: Orange solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.27	3.54	14.06
Found	54.29	3.53	14.14

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: 5-[[4-(2-Pyridylsulfamoyl)phenyl]azo]salicylic acid

Description:

Inhibitor of NF-κB activation. Inhibits in vitro growth of the human pancreatic cancer cell lines MIA PaCa-2 and PANC-1, and induces apoptosis in glioblastoma cell lines. Also inhibits the cystine-glutamate antiporter, system X_c (SXC). Inhibitor of folate transporter 1 (SLC19A1); inhibits cellular uptake of Methotrexate (Cat. No. 1230) and cyclic dinucleotides, including 2',3'-cGAMP (Cat.No. 5945). Anti-inflammatory. Induces ferroptosis.

Physical and Chemical Properties:

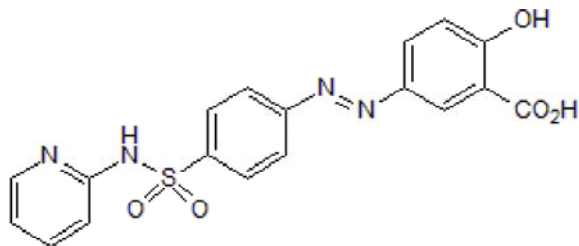
Batch Molecular Formula: C₁₈H₁₄N₄O₅S

Batch Molecular Weight: 398.39

Physical Appearance: Orange solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

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. 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:

Luteijn et al (2019) SLC19A1 transports immunoreactive cyclic dinucleotides. *Nature* **573** 434. PMID: 31511694.

Sontheimer and Bridges (2012) Sulfasalazine for brain cancer fits. *Expert Opin.Invest.Drugs* **21** 575. PMID: 22404218.

Lo et al (2010) Potential use fo the anti-inflammatory drug, sulfasalazine, for targeted therapy of pancreatic cancer. *Curr.Oncol.* **17** 9. PMID: 20567622.

Jansen et al (2004) Sulfasalazine is a potent inhibitor of the reduced folate carrier: implications for combination therapies with methotrexate in rheumatoid arthritis. *Arthritis Rheum.* **50** 2130. PMID: 15248210.

Robe et al (2004) *In vitro* and *in vivo* activity of the nuclear factor-κB inhibitor sulfasal. in human glioblastomas. *Clin.Cancer Res.* **10** 5595. PMID: 15328202.

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