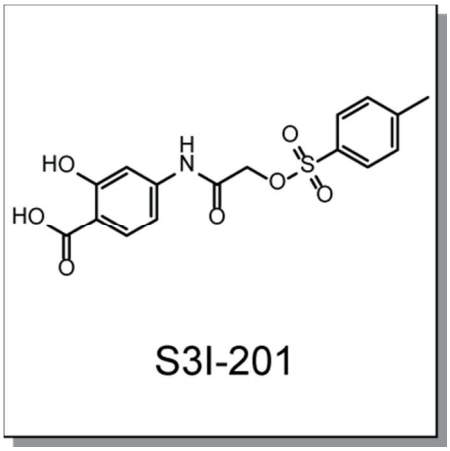
Product Specification Sheet

Product Name: S3I-201

Catalog Number: C7341-5 (powder)
C7341-5s (10mM in DMSO)

Package Size: 5 mg



Technical information:

Chemical Formula:	$C_{16}H_{15}NO_7S$
CAS #:	501919-59-1
Molecular Weight:	365.36
Purity:	>98%
Formulation:	Off white solid
Solubility:	Soluble in DMSO up to 50 mM
Chemical Name:	2-Hydroxy-4-[[[(4-methylphenyl)sulfonyloxy]acetyl]amino]-benzoic acid
Storage:	Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Handling:

- For C7341-5 (powder), add 1.369 mL of DMSO to make 10 mM solution.
- For C7341-5s, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: S3I-201 (NSC74859) is a cell-permeable, amidosalicylic acid based small molecule that inhibits Stat3 activity with IC50 of 86 μM[1]. S3I-201 binds to the Stat3-SH2 domain and prevents its dimerization, inhibiting stat3 phosphorylation, translocation and Stat3-dependent transcription activities. S31-201 preferentially inhibits growth and induces apoptosis in tumor cells that contain persistently activated stat3[1]. In addition, S3I-201 has been shown to retard stat3-dependent tumor growth in human breast tumor xenograft models, and to impair VZV infection of skin xenografts in vivo[1,2,3].

Reference:

1. Siddiquee K. et al. Selective chemical probe inhibitor of Stat3, identified through structure-based virtual screening, induces antitumor activity. Proc Natl Acad Sci U S A. 2007 May 1;104(18):7391-6.
2. Lin L, et al. The STAT3 inhibitor NSC 74859 is effective in hepatocellular cancers with disrupted TGF-beta signaling. Oncogene, 2009, 28(7), 961-972.
3. Sen N, et al. Signal transducer and activator of transcription 3 (STAT3) and survivin induction by varicella-zoster virus promote replication and skin pathogenesis. Proc Natl Acad Sci U S A, 2012, 109(2), 600-605.

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