

PRODUCT INFORMATION

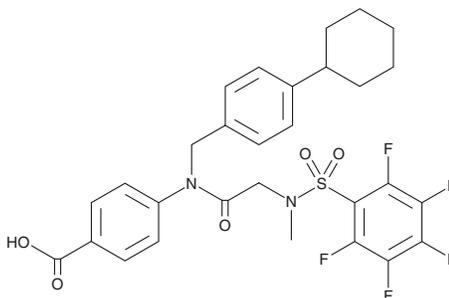


SH-4-54

Item No. 25982

CAS Registry No.: 1456632-40-8
Formal Name: 4-[[[(4-cyclohexylphenyl)methyl][2-[methyl[(2,3,4,5,6-pentafluorophenyl)sulfonyl]amino]acetyl]amino]-benzoic acid

MF: C₂₉H₂₇F₅N₂O₅S
FW: 610.6
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

SH-4-54 is supplied as a crystalline solid. A stock solution may be made by dissolving the SH-4-54 in the solvent of choice, which should be purged with an inert gas. SH-4-54 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of SH-4-54 in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Description

SH-4-54 is an inhibitor of signal transducer and activator of transcription 3 (STAT3; IC₅₀ = 4.7 μM for STAT3 homodimer DNA binding activity).¹ It selectively inhibits STAT3 homodimer over STAT1 and STAT5 homodimer and STAT3:STAT1 heterodimer DNA binding in EGF-stimulated NIH3T3/hEGFR nuclear extracts containing activated STAT1, STAT3, and STAT5 and decreases STAT3 *i*NOS, *Survivin*, and *Bcl-2* promoter occupancy in MDA-MB-231 cells. SH-4-54 inhibits growth of glioma, breast, and prostate cancer cell lines that express constitutively active STAT3 (IC₅₀s = 1-7.4, 3.8-4.5, and 5.3-5.8 μM, respectively). *In vivo*, SH-4-54 (3 mg/kg per day) inhibits tumor growth in the U251MG glioma and MDA-MB-231 breast cancer mouse xenograft models.

Reference

1. Yue, P., Lopez-Tapia, F., Paladino, D., *et al.* Hydroxamic acid and benzoic acid-based STAT3 inhibitors suppress human glioma and breast cancer phenotypes *in vitro* and *in vivo*. *Cancer Res.* **76**(3), 652-663 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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