

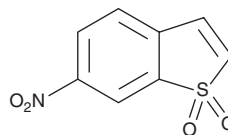
PRODUCT INFORMATION



Stattic

Item No. 14590

CAS Registry No.: 19983-44-9
Formal Name: 6-nitro-1,1-dioxide-benzo[b]thiophene
Synonym: STAT3 Inhibitor V
MF: C₈H₅NO₄S
FW: 211.2X
Purity: ≥98%
UV/Vis.: λ_{max}: 214, 308 nm
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

Stattic is supplied as a crystalline solid. A stock solution may be made by dissolving the stattic in the solvent of choice, which should be purged with an inert gas. Stattic is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of stattic in these solvents is approximately 25 mg/ml.

Stattic is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, stattic should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Stattic has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Signal transducers and activators of transcription (STATs) are a family of latent cytoplasmic transcription factors that convey signals from the cell membrane to the nucleus. In various human tumors, STAT3 is constitutively activated by aberrant upstream tyrosine kinase activities.¹ Stattic is a small molecule inhibitor of STAT3.¹ It selectively inhibits STAT3 activation, dimerization, and nuclear translocation by preventing the binding of tyrosine-phosphorylated peptide motifs to the STAT3 SH2 domain (IC₅₀ = 5.1 μM at 37°C).¹ At 10 μM, stattic induces apoptosis in STAT3-dependent breast cancer (MDA-MB-231 and MDA-MB-435S) cell lines.¹

Reference

1. Schust, J., Sperl, B., Hollis, A., *et al.* Stattic: A small-molecule inhibitor of STAT3 activation and dimerization. *Chem. Biol.* **13**(11), 1235-1242 (2006).

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.

WARRANTY AND LIMITATION OF REMEDY

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