# PRODUCT INFORMATION



## SF2523

Item No. 21638

CAS Registry No.: 1174428-47-7

Formal Name: 3-(2,3-dihydro-1,4-benzodioxin-6-yl)-5-(4-

morpholinyl)-7H-thieno[3,2-b]pyran-7-one

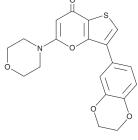
MF:  $C_{19}H_{17}NO_{5}S$ 

FW: 371.4 **Purity:** ≥98%

 $\lambda_{max}$ : 214, 241, 306 nm A crystalline solid UV/Vis.: Supplied as:

Storage: -20°C Stability: ≥4 years

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



## **Laboratory Procedures**

SF2523 is supplied as a crystalline solid. A stock solution may be made by dissolving the SF2523 in the solvent of choice. SF2523 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of SF2523 in these solvents is approximately 10 mg/ml. SF2523 is also slightly soluble in ethanol.

SF2523 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SF2523 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. SF2523 has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

SF2523 is a dual inhibitor of phosphatidylinositol 3-kinase (PI3K;  $IC_{50}$  = 16 nM) and bromodomaincontaining protein 4 (BRD4;  $IC_{50}$ s = 241 and 1,550 nM for BRD4 bromodomains 1 and 2, respectively). It reduces MYCN gene expression, decreases MYCN and cyclin D1 protein levels, and inhibits phosphorylation of Akt in SKNBE2 cells. In vivo, SF2523 reduces tumor volume and protein levels of MYCN and cyclin D1 in a MYCN-amplified SKNBE2 neuroblastoma xenograft model in mice. It also reduces tumor growth and the number of colonic lymph node metastases in the murine orthotopic pancreatic Panc02 carcinoma model for spontaneous lymph node metastasis.

#### Reference

1. Andrews, F.H., Singh, A.R., Joshi, S., et al. Dual-activity PI3K-BRD4 inhibitor for the orthogonal inhibition of MYC to block tumor growth and metastasis. Proc. Natl. Acad. Sci. USA 114(7), E1072-E1080 (2017).

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

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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