

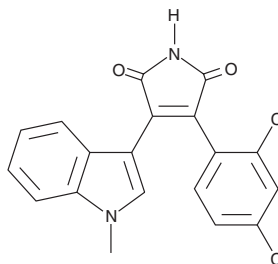
# PRODUCT INFORMATION



**SB-216763**

Item No. 10010246

**CAS Registry No.:** 280744-09-4  
**Formal Name:** 3-(2,4-dichlorophenyl)-4-(1-methyl-1H-indol-3-yl)-1H-pyrrole-2,5-dione  
**MF:** C<sub>19</sub>H<sub>12</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>2</sub>  
**FW:** 371.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 220, 428 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

SB-216763 is supplied as a crystalline solid. A stock solution may be made by dissolving the SB-216763 in the solvent of choice, which should be purged with an inert gas. SB-216763 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of SB-216763 in these solvents is approximately 2.5 and 2 mg/ml, respectively.

SB-216763 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SB-216763 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. SB-216763 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Glycogen synthase kinase 3 (GSK3) is a serine/threonine protein kinase that is inhibited by an assortment of extracellular stimuli including insulin, growth factors, cell specification factors, and cell adhesion. SB-216763 is a potent and selective cell permeable ATP-competitive inhibitor of GSK3α with an IC<sub>50</sub> value of 34 nM (similar potency for GSK3β).<sup>1</sup> It stimulates glycogen synthesis in Chang human liver cells with an EC<sub>50</sub> value of 3.6 μM and induces expression of a β-catenin-LEF/Tcf regulated reporter gene in HEK293 cells.<sup>1</sup> SB-216763 protects primary neurons from death induced by the PI3-kinase pathway.<sup>2</sup>

## References

1. Coghlan, M.P., Culbert, A.A., Cross, D.A.E., *et al.* Selective small molecule inhibitors of glycogen synthase kinase-3 modulate glycogen metabolism and gene transcription. *Chemistry & Biology* **7**(10), 793-803 (2000).
2. Cross, D.A.E., Culbert, A.A., Chalmers, K.A., *et al.* Selective small-molecule inhibitors of glycogen synthase kinase-3 activity protect primary neurons from death. *J. Neurochem.* **77**, 94-102 (2001).

### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/14/2022

## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM