

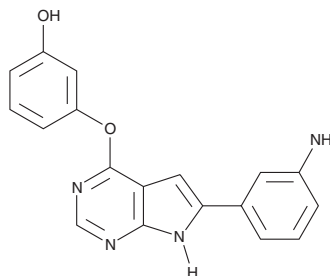
# PRODUCT INFORMATION



## TWS119

Item No. 10011251

**CAS Registry No.:** 601514-19-6  
**Formal Name:** 3-[[6-(3-aminophenyl)-7H-pyrrolo[2,3-d]pyrimidin-4-yl]oxy]-phenol  
**MF:** C<sub>18</sub>H<sub>14</sub>N<sub>4</sub>O<sub>2</sub>  
**FW:** 318.3  
**Purity:** ≥90%  
**UV/Vis.:** λ<sub>max</sub>: 233, 311 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

TWS119 is supplied as a crystalline solid. A stock solution may be made by dissolving the TWS119 in the solvent of choice, which should be purged with an inert gas. TWS119 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of TWS119 in ethanol is approximately 0.3 mg/ml and approximately 20 mg/ml in DMSO and DMF.

TWS119 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TWS119 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. TWS119 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

Glycogen synthase kinase 3 (GSK3) is a serine/threonine protein kinase that is inhibited by a number of extracellular stimuli such as insulin, growth factors, cell specification factors, and cell adhesion. Its activity regulates many cell functions including cell division, apoptosis, and inflammation. TWS119 is a 4,6 disubstituted pyrrolopyrimidine that potently inhibits GSK3β with an IC<sub>50</sub> value of 30 nM.<sup>1</sup> At 400 nM, TWS119 induces neurogenesis in mouse embryonic stem cells making it a useful tool to regulate stem cell self-renewal and differentiation.<sup>1</sup>

### Reference

1. Ding, S., Wu, T.Y.H., Brinker, A., *et al.* Synthetic small molecules that control stem cell fate. *Proc. Natl. Acad. Sci. USA* **100**(13), 7632-7637 (2003).

#### 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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