

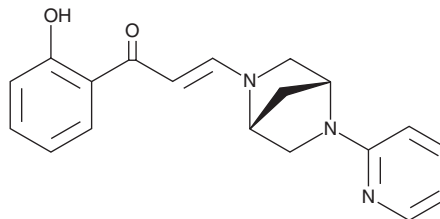
# PRODUCT INFORMATION



## PFI-3

Item No. 15267

**CAS Registry No.:** 1819363-80-8  
**Formal Name:** (2E)-1-(2-hydroxyphenyl)-3-[(1R,4R)-5-(2-pyridinyl)-2,5-diazabicyclo[2.2.1]hept-2-yl]-2-propen-1-one  
**MF:** C<sub>19</sub>H<sub>19</sub>N<sub>3</sub>O<sub>2</sub>  
**FW:** 321.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 211, 230, 247, 362 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

PFI-3 is supplied as a crystalline solid. A stock solution may be made by dissolving the PFI-3 in the solvent of choice. PFI-3 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of PFI-3 in ethanol is approximately 0.3 mg/ml and approximately 25 mg/ml in DMSO and DMF.

PFI-3 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PFI-3 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PFI-3 has a solubility of approximately 0.15 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

The SWI/SNF-related, Matrix-associated, Actin-dependent Regulator of Chromatin (SMARC) proteins integrate into complexes that remodel chromatin.<sup>1</sup> The SMARC family A (SMARCA) members SMARCA2 (also known as BRM) and SMARCA4 (BRG1) are helicases that contain structurally-related bromodomains for binding acetylated lysine residues on target proteins.<sup>2,3</sup> The protein polybromo-1 (PB1, BRG1-associated factor) contains six bromodomains, but only the fifth (PB1(5)) shares the same structural signature as those of SMARCA2 and SMARCA4.<sup>2</sup> PFI-3 is a probe that binds avidly to the structurally-similar SMARCA4 bromodomain and PB1(bromodomain 5) with K<sub>d</sub> values of 89 and 48 nM, respectively. Evaluation of interactions of PFI-3 with different classes of bromodomains using thermal stability assay indicates that PFI-3 interacts selectively with bromodomains from SMARCA2 and SMARCA4 as well as the fifth domain of PB1. Similarly, PFI-1 (Item No. 11155) does not interact with a panel of kinases. See the Structural Genomics Consortium (SGC) website for more information.

### References

1. Ring, H.Z., Vameghi-Meyers, V., Wang, W., *et al.* Five SWI/SNF-related, matrix-associated, actin-dependent regulator of chromatin (SMARC) genes are dispersed in the human genome. *Genomics* **51**(1), 140-143 (1998).
2. Vidler, L.R., Brown, N., Knapp, S., *et al.* Druggability analysis and structural classification of bromodomain acetyl-lysine binding sites. *J. Med. Chem.* **55**(17), 7346-7359 (2012).
3. Park, J.-I., Venteicher, A.S., Hong, J.Y., *et al.* Telomerase modulates Wnt signalling by association with target gene chromatin. *Nature* **460**(7251), 66-72 (2009).

#### 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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