

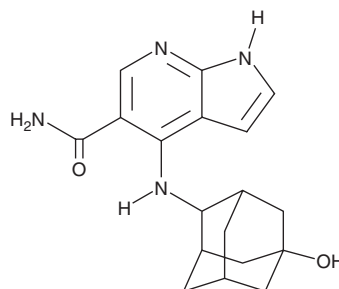
# PRODUCT INFORMATION



## Peficitinib

Item No. 22954

**CAS Registry No.:** 944118-01-8  
**Formal Name:** 4-[(5-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl)amino]-1H-pyrrolo[2,3-b]pyridine-5-carboxamide, stereoisomer  
**Synonyms:** ASP015K, JNJ-54781532  
**MF:** C<sub>18</sub>H<sub>22</sub>N<sub>4</sub>O<sub>2</sub>  
**FW:** 326.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 246, 294 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

Peficitinib is supplied as a crystalline solid. A stock solution may be made by dissolving the peficitinib in the solvent of choice, which should be purged with an inert gas. Peficitinib is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of peficitinib in these solvents is approximately 1, 10, and 2 mg/ml, respectively.

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

Peficitinib is an inhibitor of JAK (IC<sub>50</sub>s = 3.9, 5, and 0.71 nM for JAK1-3, respectively).<sup>1</sup> It is 14-fold selective for JAK1 and JAK3 over JAK2 in erythropoietin-induced leukemia cell proliferation assays. Peficitinib inhibits IL-2-induced proliferation of rat splenocytes (IC<sub>50</sub> = 10 nM) and phosphorylation of STAT5 in rat and human whole blood (IC<sub>50</sub>s = 124 and 127 nM, respectively).<sup>2</sup> *In vivo*, peficitinib reduces paw swelling (ED<sub>50</sub> = 5.6 mg/kg) and bone destruction in a rat model of adjuvant-induced arthritis when administered at a dose of 30 mg/kg.

### References

1. Norman, P. Selective JAK inhibitors in development for rheumatoid arthritis. *Expert Opin. Investig. Drugs* **23**(8), 1067-1077 (2014).
2. Ito, M., Yamazaki, S., Yamagami, K., *et al.* A novel JAK inhibitor, peficitinib, demonstrates potent efficacy in a rat adjuvant-induced arthritis model. *J. Pharmacol. Sci.* **133**(1), 25-33 (2017).

#### 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, 12/20/2022

#### 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