

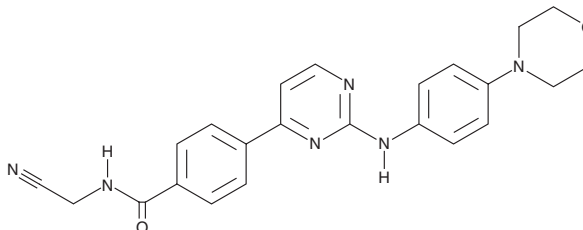
# PRODUCT INFORMATION



## CYT387

Item No. 16246

**CAS Registry No.:** 1056634-68-4  
**Formal Name:** N-(cyanomethyl)-4-[2-[[4-(4-morpholinyl)phenyl]amino]-4-pyrimidinyl]-benzamide  
**Synonym:** Momelotinib  
**MF:** C<sub>23</sub>H<sub>22</sub>N<sub>6</sub>O<sub>2</sub>  
**FW:** 414.5  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 292 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

CYT387 is supplied as a crystalline solid. A stock solution may be made by dissolving the CYT387 in the solvent of choice, which should be purged with an inert gas. CYT387 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CYT387 in these solvents is approximately 16 and 14 mg/ml, respectively.

### Description

CYT387 is an ATP-competitive inhibitor of the Janus kinases JAK1 and JAK2 (IC<sub>50</sub>s = 11 and 18 nM, respectively).<sup>1,2</sup> It displays significantly less activity against other kinases, including JAK3 (IC<sub>50</sub> = 0.16 μM).<sup>1</sup> At 0.5 to 1.5 μM, CYT387 causes growth suppression and apoptosis in JAK2-dependent hematopoietic cell lines.<sup>1</sup> It is efficacious in a mouse model of JAK2<sup>V617F</sup>-dependent myeloproliferative neoplasms, although kinase domain mutations can confer resistance.<sup>1,3</sup> CYT387 also blocks paclitaxel-induced JAK2 activation in ovarian cancer cells, preventing the development of a cancer stem cell-like population following chemotherapy.<sup>4</sup>

### References

1. Tyner, J.W., Bumm, T.G., Deininger, J., *et al.* CYT387, a novel JAK2 inhibitor, induces hematologic responses and normalizes inflammatory cytokines in murine myeloproliferative neoplasms. *Blood* **115**(25), 5232-5240 (2010).
2. Furqan, M., Mukhi, N., Lee, B., *et al.* Dysregulation of JAK-STAT pathway in hematological malignancies and JAK inhibitors for clinical application. *Biomark. Res.* **1**(1), 1-10 (2013).
3. Deshpande, A., Reddy, M.M., Schade, G.O.M., *et al.* Kinase domain mutations confer resistance to novel inhibitors targeting JAK2<sup>V617F</sup> in myeloproliferative neoplasms. *Leukemia* **26**(4), 708-715 (2012).
4. Abubaker, K., Luwor, R.B., Zhu, H., *et al.* Inhibition of the JAK2/STAT3 pathway in ovarian cancer results in the loss of cancer stem cell-like characteristics and a reduced tumor burden. *BMC Cancer* **14**, 317 (2014).

#### 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, 11/08/2022

#### 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