

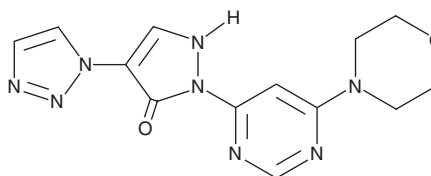
PRODUCT INFORMATION



BAY 85-3934

Item No. 15297

CAS Registry No.: 1154028-82-6
Formal Name: 1,2-dihydro-2-[6-(4-morpholinyl)-4-pyrimidinyl]-4-(1H-1,2,3-triazol-1-yl)-3H-pyrazol-3-one
Synonym: Molidustat
MF: C₁₃H₁₄N₈O₂
FW: 314.3
Purity: ≥95%
UV/Vis.: λ_{max}: 251, 286 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

BAY 85-3934 is supplied as a crystalline solid. A stock solution may be made by dissolving the BAY 85-3934 in the solvent of choice, which should be purged with an inert gas. BAY 85-3934 is slightly soluble in ethanol and methanol.

Description

BAY 85-3934 is a pan-inhibitor of hypoxia-inducible factor prolyl hydroxylases (HIF-PH; IC₅₀s = 0.48, 0.28, and 0.45 μM for HIF-PH1, HIF-PH2, and HIF-PH3, respectively).¹ It stabilizes HIF-1α and HIF-2α levels in HeLa cells in a concentration- and time-dependent manner. BAY 85-3934 (50 μM) induces cell-cycle arrest at the G₂/S phase in MDA-MB-231 breast cancer cells.² It decreases lactate dehydrogenase (LDH) release from PC12 cells in an *in vitro* model of ischemia induced by oxygen-glucose deprivation when used at a concentration of 100 μM.³ BAY 85-3934 (5 mg/kg) increases plasma erythropoietin and hemoglobin levels, as well as packed cell volume, in a rat model of gentamicin-induced kidney failure.¹

References

1. Flamme, I., Oehme, F., Ellinghaus, P., *et al.* Mimicking hypoxia to treat anemia: HIF-stabilizer BAY 85-3934 (molidustat) stimulates erythropoietin production without hypertensive effects. *PLoS One* **9(11)**, e111838 (2014).
2. Kachamakova-Trojanowska, N., Podkalicka, P., Bogacz, T., *et al.* HIF-1 stabilization exerts anticancer effects in breast cancer cells *in vitro* and *in vivo*. *Biochem. Pharmacol.* **175**, 113922 (2020).
3. Singh, A., Wilson, J.W., Schofield, C.J., *et al.* Hypoxia-inducible factor (HIF) prolyl hydroxylase inhibitors induce autophagy and have a protective effect in an *in-vitro* ischaemia model. *Sci Rep.* **10(1)**, 1597 (2020).

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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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