

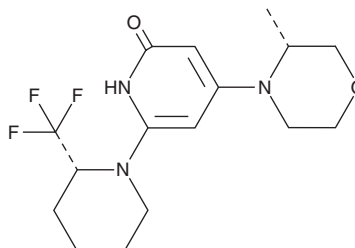
PRODUCT INFORMATION



SB-02024

Item No. 41231

CAS Registry No.: 2126737-28-6
Formal Name: 4-[(3R)-3-methyl-4-morpholinyl]-
6-[(2R)-2-(trifluoromethyl)-1-
piperidinyl]-2(1H)-pyridinone
MF: C₁₆H₂₂F₃N₃O₂
FW: 345.4
Purity: ≥98%
Supplied as: A 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

SB-02024 is supplied as a solid. A stock solution may be made by dissolving the SB-02024 in the solvent of choice, which should be purged with an inert gas. SB-02024 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in acetonitrile.

Description

SB-02024 is an inhibitor of vacuolar protein sorting 34 (VPS34; IC₅₀ = 5 nM).¹ It selectively binds to VPS34 (K_d = 0.0011 μM) over eight other PI3K kinases (K_ds = 1.2693->30 μM), mTOR (K_d = 1.0199 μM), a panel of 468 kinases at 1 μM, and an additional panel of 97 kinases at 1 μM.² SB-02024 (0.7 μM) inhibits autophagic flux in H1299 cells. *In vivo*, SB-02024 (20 mg/kg) enhances increases in survival when used in combination with an antibody targeting programmed cell death protein 1 (PD-1) or PD-1 ligand (PD-L1) in B16/F10 murine melanoma and CT26 murine colorectal cancer models.³ SB-02024 (20 mg/kg) also enhances increases in survival and decreases in tumor volume when used in combination with the STING agonist ADU-S100 (Item No. 27901) in a B16/F10 murine melanoma model.¹

References

1. Yu, Y., Bogdan, M., Noman, M.Z., *et al.* Combining VPS34 inhibitors with STING agonists enhances type I interferon signaling and anti-tumor efficacy. *Mol. Oncol.* **18**(8), 1904-1922 (2024).
2. Dyczynski, M., Yu, Y., Otrrocka, M., *et al.* Targeting autophagy by small molecule inhibitors of vacuolar protein sorting 34 (Vps34) improves the sensitivity of breast cancer cells to Sunitinib. *Cancer Lett.* **435**, 32-43 (2018).
3. Noman, M.Z., Parpal, S., Van More, K., *et al.* Inhibition of Vps34 reprograms cold into hot inflamed tumors and improves anti-PD-1/PD-L1 immunotherapy. *Sci. Adv.* **6**(18), eaax7881 (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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