

Product Datasheet

NVP-BSK 805

Catalog No. **BP-02300** · CAS **1092499-93-8** · Form **free base** · Physical state **solid** · Color **off-white to yellow** · Version **1.0** · Revision **2026-09-10**

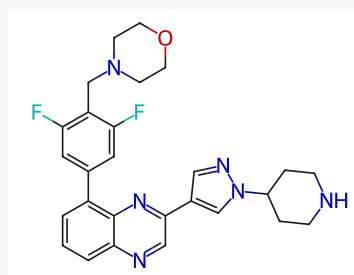
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Target JAK	Research area Cancer
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Molecular formula **C₂₇H₂₈F₂N₆O**

Molecular weight **490.5476**

STRUCTURE



DESCRIPTION

NVP-BSK805 is an ATP-competitive JAK2 inhibitor, with IC₅₀s of 0.48 nM, 31.63 nM, 18.68 nM, and 10.76 nM for JAK2 JH1 (JAK homology 1), JAK1 JH1, JAK3 JH1, and TYK2 JH1, respectively

BIOLOGICAL ACTIVITY

In Vitro

NVP-BSK805 (BSK 805) is a JAK2 inhibitor, with IC₅₀s of 0.48 nM, 31.63 nM, 18.68 nM, and 10.76 nM for JAK2 JH1 (JAK homology 1), JAK1 JH1, JAK3 JH1, and TYK2 JH1, respectively. NVP-BSK805 inhibits the full-length wild-type JAK2 (FL JAK2 wt) and FL JAK2 V617F activity, with IC₅₀s of 0.58 ± 0.03 and 0.56 ± 0.04 nM. NVP-BSK805 is ATP-competitive, with calculated K_i of 0.43 ± 0.02 nM. NVP-BSK805 suppresses the growth of JAK2V617F-bearing acute myeloid leukemia cell lines with GI₅₀ of <100 nM. NVP-BSK805 blocks the STAT5 phosphorylation at ≥100 nM concentrations, and shows a bias for JAK2 over JAK1 and JAK3 inhibition in the JAK2V617F-mutant cell lines[1].

NVP-BSK805 (5 μM) improves P-gp inhibitory activity. NVP-BSK805 increases sensitization of drug-resistant KBV20C cancer cells to VIC treatment at 10 μM, and such an effect is more effective than a 5 μM dose[2].

In Vivo

NVP-BSK805 (BSK 805; 150 mg/kg, p.o.) blocks STAT5 phosphorylation, splenomegaly, and leukemic cell spreading in a Ba/F3 JAK2V617F cell-driven mouse model[1].

NVP-BSK805 (50, 75, and 100 mg/kg, p.o.) also suppresses rhEpo-mediated polycythemia and splenomegaly in BALB/c mice[1].

SOLUBILITY

Soluble in DMSO

REFERENCES

- [1]. Baffert F, et al. Potent and selective inhibition of polycythemia by the quinoxaline JAK2 inhibitor NVP-BSK805. *Mol Cancer Ther.* 2010 Jul;9(7):1945-55.
- [2]. Cheon JH, et al. The JAK2 inhibitors CEP-33779 and NVP-BSK805 have high P-gp inhibitory activity and sensitize drug-resistant cancer cells to vincristine. *Biochem Biophys Res Commun.* 2017 Sep 2;490(4):1176-1182.
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Lot CoA and SDS are separate documents.