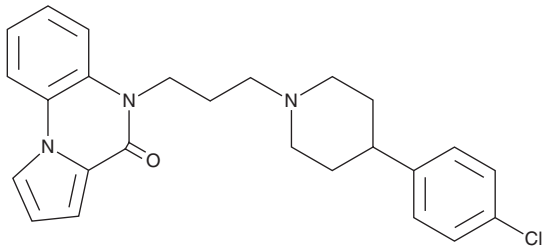
PRODUCT INFORMATION

JMS-17-2

Item No. 46412

CAS Registry No.: 1380392-05-1
Formal Name: 5-[3-[4-(4-chlorophenyl)-1-piperidinyl]propyl]-pyrrolo[1,2-a]quinoxalin-4(5H)-one
MF: $C_{25}H_{26}ClN_3O$
FW: 420.0
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

JMS-17-2 is supplied as a solid. A stock solution may be made by dissolving the JMS-17-2 in the solvent of choice, which should be purged with an inert gas. JMS-17-2 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

JMS-17-2 is a chemokine (C-X3-C motif) receptor 1 (CX_3CR1) antagonist (IC_{50} = 0.32 nM).[1] It is selective for CX_3CR1 over CXCR1 and CXCR2 at 1 µM. JMS-17-2 (10 and 100 nM) inhibits the migration of MDA-MB-231 breast cancer cells induced by chemokine (C-X3-C motif) ligand 1 (CX_3CL1), also known as fractalkine. It decreases tumor volume in colorectal cancer mouse xenograft models when administered alone or in combination with an anti-programmed cell death protein 1 (anti-PD-1) antibody.[2] JMS-17-2 reverses depressive-like behaviors and microglia-mediated excessive synapse pruning in *Il15ra*$^{-/-}$ mice.[3] It decreases mechanical allodynia and spinal microglia M1 polarization in a mouse model of endometriosis.[4]

References

1. Shen, F., Zhang, Y., Jernigan, D.L., *et al*. Novel small-molecule CX3CR1 antagonist impairs metastatic seeding and colonization of breast cancer cells. *Mol. Cancer Res*. **14(6)**, 518-527 (2016).
2. Zi, R., Zhao, X., Liu, L., *et al.* Metabolic-immune suppression mediated by the SIRT1-CX3CL1 axis induces functional enhancement of regulatory T cells in colorectal carcinoma. *Adv. Sci. (Weinh)* **12(17)**, e2404734 (2025).
3. Tang, Y., Huang, Y., Pan, J., *et al*. IL-15 receptor alpha deficiency triggers depressive-like behaviors via enhanced microglial synapse pruning. *Mol. Psychiatry* **31(9)**, 5048-5061 (2026).
4. Wu, Q., Yang, F., Yang, R., *et al.* CX3CR1/P2X4R signaling-mediated spinal microglial M1 polarization contributes to chronic pelvic pain in endometriosis. *Int. Immunopharmacol.* **175**, 116471 (2026).

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
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