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## DATASHEET

Pexidartinib (PLX3397)

### Product overview

<b>Name</b>	Pexidartinib (PLX3397)
<b>Cat No</b>	HB8991
<b>Biological action</b>	Inhibitor
<b>Purity</b>	>98%
<b>Description</b>	Potent CSF-1R inhibitor. Widely used microglia-depletion agent.

### Biological Data

<b>Biological description</b>	Potent CSF-1R inhibitor ( $IC_{50} = 20$ nM). Reduces system and local macrophages accumulation without affecting Gr-1+ myeloid derived suppressor cells in the B16F10 mouse melanoma model. Promotes tumor growth control in combination with CD8 T-cell immunotherapy and improves adoptive cell therapy efficacy in the BRAF <sup>V600E</sup> -driven mouse melanoma model. Orally bioavailable. Recently reported to eliminate brain microglial temporarily and recoverably in adult mice.
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### Solubility & Handling

<b>Storage instructions</b>	-20 °C
<b>Solubility overview</b>	Soluble in DMSO (100 mM)
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

### Chemical Data

<b>Chemical name</b>	N-[5-[(5-Chloro-1H-pyrrolo[2,3-b]pyridin-3-yl)methyl]-2-pyridinyl]-6-(trifluoromethyl)-3-pyridinemethanamine
<b>Molecular Weight</b>	417.82
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>20</sub> H <sub>15</sub> ClF <sub>3</sub> N <sub>5</sub>
<b>CAS Number</b>	1029044-16-3
<b>PubChem identifier</b>	25151352
<b>SMILES</b>	C1=CC(=NC=C1CC2=CNC3=C2C=C(C=N3)Cl)NCC4=CN=C(C=C4)C(F)(F)F
<b>InChi</b>	InChI=1S/C20H15ClF3N5/c21-15-6-16-14(10-28-19(16)29-11-15)5-12-2-4-18(26-7-12)27-9-13-1-3-17(25-8-13)20(22,23)24/h1-4,6-8,10-11H,5,9H2,(H,26,27)(H,28,29)
<b>InChiKey</b>	JGWRKYUXBBNENE-UHFFFAOYSA-N
<b>MDL number</b>	MFCD28900745

### References

**Pexidartinib (PLX3397) through restoring hippocampal synaptic plasticity ameliorates social isolation-induced mood disorders.**

Wang L et al (2022) International immunopharmacology 113

PubMedID

36395673

**Pexidartinib, a Novel Small Molecule CSF-1R Inhibitor in Use for Tenosynovial Giant Cell Tumor: A Systematic Review of Pre-Clinical and Clinical Development.**

Benner B et al (2020) Drug design, development and therapy 14

PubMedID

32440095

**Inhibition of Colony Stimulating Factor 1 Receptor Suppresses Neuroinflammation and Neonatal Hypoxic-Ischemic Brain Injury.**

Zhang B et al (2021) Frontiers in neurology 12

PubMedID

33679579

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