

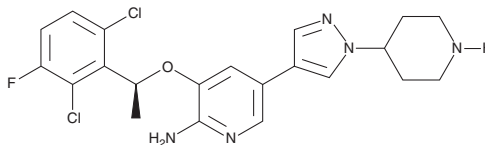
PRODUCT INFORMATION



(S)-Crizotinib

Item No. 31114

CAS Registry No.: 1374356-45-2
Formal Name: 3-[(1S)-1-(2,6-dichloro-3-fluorophenyl)ethoxy]-5-[1-(4-piperidinyl)-1H-pyrazol-4-yl]-2-pyridinamine
MF: C₂₁H₂₂Cl₂FN₅O
FW: 450.3
Purity: ≥98%
UV/Vis.: λ_{max}: 270 nm
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

(S)-Crizotinib is supplied as a solid. A stock solution may be made by dissolving the (S)-crizotinib in the solvent of choice, which should be purged with an inert gas. (S)-Crizotinib is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (S)-crizotinib is approximately 0.5 mg/ml in ethanol and DMSO and approximately 5 mg/ml in DMF.

(S)-Crizotinib is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, (S)-crizotinib should first be dissolved in DMF and then diluted with the aqueous buffer of choice. (S)-Crizotinib has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

(S)-Crizotinib is an inhibitor of muT homolog 1 (MTH1; IC₅₀ = 72 nM).¹ It is selective for MTH1 over a panel of 456 kinases at 1 μM. (S)-Crizotinib (30 μM) induces oxidative DNA damage and apoptosis in SGC-7901 and BGC-823 human gastric cancer cells.² It inhibits proliferation in a panel of 14 cancer cell lines expressing wild-type or various mutant forms of K-Ras and p53 (IC₅₀s = 0.52-7.4 μM).¹ (S)-Crizotinib (25 mg/kg, s.c.) reduces tumor growth in an SW480 mouse xenograft model.¹

References

1. Huber, K.V.M., Salah, E., Radic, B., *et al.* Stereospecific targeting of MTH1 by (S)-crizotinib as an anticancer strategy. *Nature* **508**(7495), 222-227 (2014).
2. Ji, J., Chen, W., Lian, W., *et al.* (S)-crizotinib reduces gastric cancer growth through oxidative DNA damage and triggers pro-survival akt signal. *Cell Death Dis.* **9**(6), 660 (2018).

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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