

PRODUCT INFORMATION



SCH 546738

Item No. 28447

CAS Registry No.: 906805-42-3
Formal Name: 3-amino-6-chloro-5-[(3S)-4-[1-[(4-chlorophenyl)methyl]-4-piperidiny]-3-ethyl-1-piperaziny]-2-pyrazinecarboxamide

MF: C₂₃H₃₁Cl₂N₇O

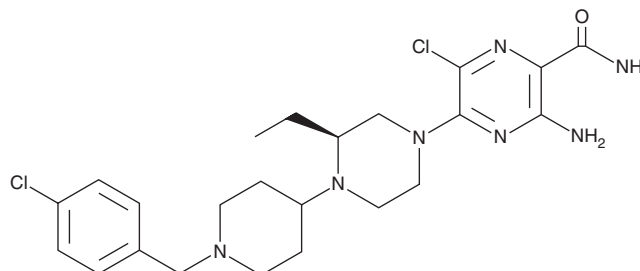
FW: 492.4

Purity: ≥95%

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

SCH 546738 is supplied as a solid. A stock solution may be made by dissolving the SCH 546738 in the solvent of choice, which should be purged with an inert gas. SCH 546738 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

SCH 546738 is an antagonist of chemokine (C-X-C motif) receptor 3 (CXCR3; $K_i = 0.4$ nM).¹ It is selective for CXCR3 over a panel of 49 other receptors at 10 μ M. SCH 546738 (10 or 100 nM) inhibits chemotaxis induced by CXC ligand 9 (CXCL9), CXCL10, or CXCL11 in hemagglutinin- and IL-2-activated primary human T cells. It increases survival in combination with cyclosporin A (Item No. 12088) in a rat model of graft versus host disease (GVHD) when administered at a dose of 5 mg/kg twice per day. SCH 546738 also reduces tumor growth and CD8⁺ T cell tumor infiltration in a murine B16/F10 melanoma model.² It decreases hepatic Cxcr3, thiobarbituric acid reactive substance (TBARS), and triglyceride levels and hepatic macrophage infiltration in a mouse model of metabolic dysfunction-associated steatohepatitis (MASH) induced by a methionine- and choline-deficient diet when administered at a dose of 10 mg/kg per day.³

References

1. Jenh, C.-H., Cox, M.A., Cui, L., *et al.* A selective and potent CXCR3 antagonist SCH 546738 attenuates the development of autoimmune diseases and delays graft rejection. *BMC Immunol.* **13**, 2 (2012).
2. Yue, C., Shen, S., Deng, J., *et al.* STAT3 in CD8⁺ T cells inhibits their tumor accumulation by downregulating CXCR3/CXCL10 axis. *Cancer Immunol. Res.* **3**(8), 864-870 (2015).
3. Zhang, X., Han, J., Man, K., *et al.* CXC chemokine receptor 3 promotes steatohepatitis in mice through mediating inflammatory cytokines, macrophages and autophagy. *J. Hepatol.* **64**(1), 160-170 (2016).

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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