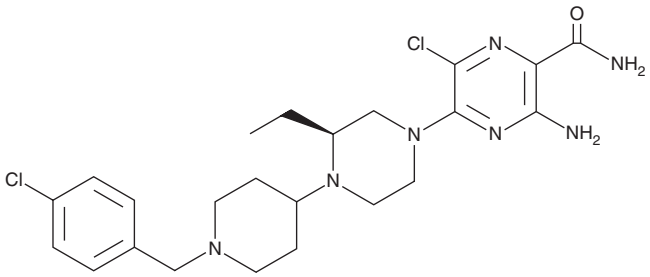
PRODUCT INFORMATION

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-piperidinyl]-3-ethyl-1-piperazinyl]-2-pyrazinecarboxamide
MF:	$C_{23}H_{31}Cl_2N_7O$
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 µM. 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).

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