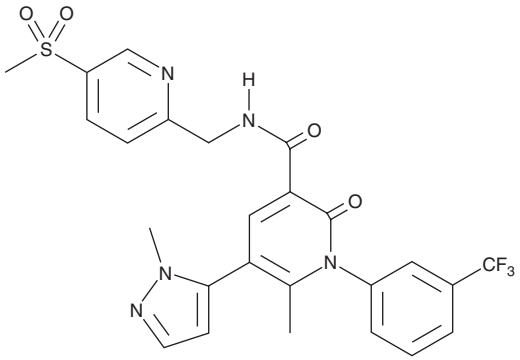
PRODUCT INFORMATION

AZD 9668

Item No. 26083

CAS Registry No.:	848141-11-7
Formal Name:	1,2-dihydro-6-methyl-5-(1-methyl-1H-pyrazol-5-yl)-N-[[5-(methylsulfonyl)-2-pyridinyl]methyl]-2-oxo-1-[3-(trifluoromethyl)phenyl]-3-pyridinecarboxamide
MF:	$C_{25}H_{22}F_3N_5O_4S$
FW:	545.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 341 nm
Supplied as:	A crystalline 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

AZD 9668 is supplied as a crystalline solid. A stock solution may be made by dissolving the AZD 9668 in the solvent of choice, which should be purged with an inert gas. AZD 9668 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of AZD 9668 in these solvents is approximately 5 mg/ml.

AZD 9668 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AZD 9668 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AZD 9668 has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

AZD 9668 is an orally bioavailable inhibitor of neutrophil elastase (IC_{50} = 12 nM for the human enzyme).[1] It is greater than 600-fold selective for neutrophil elastase over other serine proteases, including human proteinase-3 and cathepsin G, bovine trypsin and chymotrypsin, and porcine pancreatic elastase. AZD 9668 inhibits neutrophil elastase activity in zymosan-stimulated isolated whole blood and in cell-associated assays (IC_{50}s = 46 and 48 nM, respectively). It decreases the number of neutrophils in bronchoalveolar lavage fluid (BALF) in a mouse model of smoke-induced airway inflammation when administered at a dose of 6 mg/kg. AZD 9668 also prevents airspace enlargement and small airway remodeling in a guinea pig model of chronic smoke-induced inflammation and emphysema.

Reference

1. Stevens, T., Ekholm, K., Gränse, M., *et al.* AZD9668: Pharmacological characterization of a novel oral inhibitor of neutrophil elastase. *J. Pharmacol. Exp. Ther.* **339(1)**, 313-320 (2011).

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