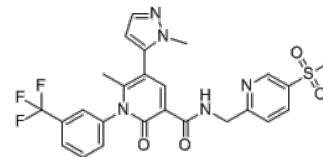


**Product Name** : Alvelestat (AZD9668)  
**Cat. No.** : PC-49230  
**CAS No.** : 848141-11-7  
**Molecular Formula** : C<sub>25</sub>H<sub>22</sub>F<sub>3</sub>N<sub>5</sub>O<sub>4</sub>S  
**Molecular Weight** : 545.537  
**Target** : Elastase  
**Solubility** : 10 mM in DMSO



### Biological Activity

Alvelestat (AZD9668, AZD-9668) is a potent, selective and orally active inhibitor of **neutrophil elastase (NE)** with IC<sub>50</sub> of 12 nM, >600-fold selective over other neutrophil-derived serine proteases.

AZD9668 inhibited plasma NE activity in zymosan-stimulated whole blood in cell-based assays.

AZD9668 inhibited NE activity on the surface of stimulated cells and in the supernatant of primed, stimulated cells in isolated human polymorphonuclear cells.

AZD9668 showed good crossover potency to NE from other species.

Oral administration of AZD9668 to mice or rats prevented human NE-induced lung injury, measured by lung hemorrhage, and an increase in matrix protein degradation products in bronchoalveolar lavage (BAL) fluid.

AZD9668 reduced the inflammatory response to cigarette smoke as indicated by a reduction in BAL neutrophils and interleukin-1 $\beta$  in acute smoke models.

### References

Stevens T, et al. *J Pharmacol Exp Ther.* 2011 Oct;339(1):313-20.

Kuna P, et al. *Respir Med.* 2012 Apr;106(4):531-9.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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