

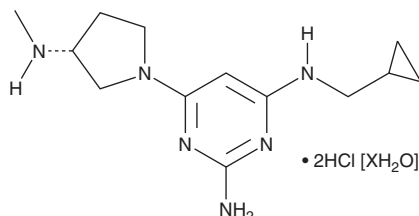
# PRODUCT INFORMATION



## Adriforant (hydrochloride hydrate)

Item No. 43638

**CAS Registry No.:** 2096455-90-0  
**Formal Name:** N<sup>4</sup>-(cyclopropylmethyl)-6-[(3R)-3-(methylamino)-1-pyrrolidiny]-2,4-pyrimidinediamine, dihydrochloride hydrate  
**Synonyms:** PF-3893787, ZPL-389  
**MF:** C<sub>13</sub>H<sub>22</sub>N<sub>6</sub> • 2HCl [XH<sub>2</sub>O]  
**FW:** 335.3  
**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

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

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of adriforant (hydrochloride hydrate) can be prepared by directly dissolving the solid in aqueous buffers. Adriforant (hydrochloride hydrate) is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

### Description

Adriforant is a histamine H<sub>4</sub> receptor antagonist (K<sub>i</sub> = 6.17 nM).<sup>1</sup> It prevents histamine-induced shape change, CD11b protein upregulation, and actin polymerization in isolated human eosinophils (IC<sub>50</sub>s = 0.65, 4.9, and 1.3 nM, respectively). Adriforant (10 μM) inhibits histamine-induced calcium influx in primary mouse dorsal root ganglion neurons.<sup>2</sup> *In vivo*, adriforant (50 mg/kg per day) decreases ear thickness and reduces basophils, eosinophils, neutrophils, and T cell infiltration in a mouse model of atopic dermatitis induced by MC903 (calcipotriol; Item No. 10009599).

### References

1. Mowbray, C.E., Bell, A.S., Clarke, N.P., *et al.* Challenges of drug discovery in novel target space. The discovery and evaluation of PF-3893787: A novel histamine H<sub>4</sub> receptor antagonist. *Bioorg. Med. Chem. Lett.* **21(21)**, 6596-6602 (2011).
2. Uluckan, Ö., Bruno, S., Wang, Y., *et al.* Adriforant is a functional antagonist of histamine receptor 4 and attenuates itch and skin inflammation in mice. *Eur. J. Pharmacol.* **945:175533**, (2023).

#### 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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