# PRODUCT INFORMATION

## HAMI3379

*Item No. 10580*

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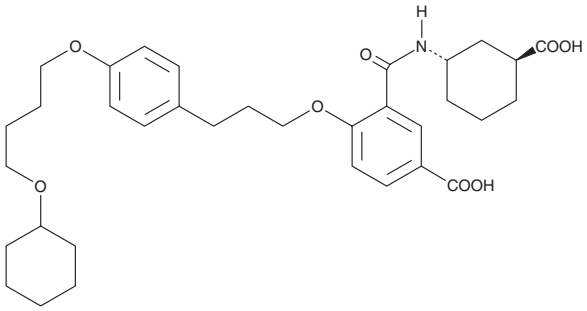
| **CAS Registry No.:** | 1245653-57-9 |
| **Formal Name:** | 3-[[[(1S,3S)-3-carboxycyclohexyl]amino]carbonyl]-4-[3-[4-[4-(cyclohexyloxy)butoxy]phenyl]propoxy]-benzoic acid |
| **MF:** | $C_{34}H_{45}NO_8$ |
| **FW:** | 595.7 |
| **Purity:** | ≥90% |
| **UV/Vis.:** | $\lambda_{max}$: 220 nm |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | ≥2 years |




*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

HAMI3379 is supplied as a crystalline solid. A stock solution may be made by dissolving the HAMI3379 in the solvent of choice, which should be purged with an inert gas. HAMI3379 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of HAMI3379 in ethanol is approximately 5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

HAMI3379 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, HAMI3379 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. HAMI3379 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

HAMI3379 is a cysteinyl leukotriene 2 ($CysLT_2$) receptor antagonist ($IC_{50}$ = 37.9 nM in a radioligand binding assay).[1] It is selective for $CysLT_2$ over $CysLT_1$ ($IC_{50}$ = >30 µM in a radioligand binding assay). HAMI3379 inhibits calcium mobilization induced by leukotriene $D_4$ ($LTD_4$; Item No. 20310) or leukotriene $C_4$ ($LTC_4$; Item No. 20210) in CHO cells expressing human $CysLT_2$ ($IC_{50}$s = 3.8 and 4.4 nM, respectively). It reverses the $LTC_4$-induced increases in perfusion pressure and decreases in contractility in isolated Langendorff-perfused guinea pig hearts in a concentration-dependent manner. HAMI3379 (0.1 mg/kg) prevents decreases in body weight and neurological deficit scores in a rat model of *S. pneumoniae*-induced meningitis, as well as reduces infarct volume in a rat model of cerebral ischemia brain injury induced by middle cerebral artery occlusion (MCAO).[2,3] It also prevents increases in airway hyperresponsiveness in a mouse model of ovalbumin-induced asthma when administered at a dose of 10 mg/kg.[4]

### References


1. Wunder, F., Tinel, H., Kast, R., *et al.* Pharmacological characterization of the first potent and selective antagonist at the cysteinyl leukotriene 2 ($CysLT_2$) receptor. *Br. J. Pharmacol.* **160(2)**, 399-409 (2010).
2. Yu, S., Chen, X., Li, X., *et al.* Neuroprotective effects of CysLTR antagonist on *Streptococcus pneumoniae*-induced meningitis in rats. *Exp. Ther. Med.* **24(1)**, 443 (2022).
3. Shi, Q.J., Wang, H., Liu, Z.X., *et al.* HAMI 3379, a CysLT2R antagonist, dose- and time-dependently attenuates brain injury and inhibits microglial inflammation after focal cerebral ischemia in rats. *Neuroscience* **291**, 53-69 (2015).
4. Trinh, H.K.T., Suh, D.-H., Nguyen, T.V.T., *et al.* Characterization of cysteinyl leukotriene-related receptors and their interactions in a mouse model of asthma. *Prostaglandins Leukot. Essent. Fatty Acids* **141**, 17-23 (2019).





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