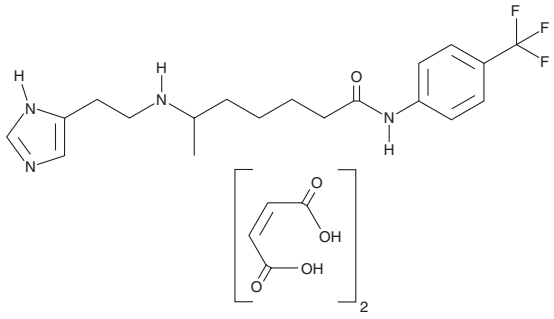
PRODUCT INFORMATION

HTMT (maleate)

Item No. 29018

CAS Registry No.: 195867-54-0
Formal Name: 6-[[2-(1H-imidazol-5-yl)ethyl]amino]-N-[4-(trifluoromethyl)phenyl]-heptanamide, 2Z-butenedioate
Synonym: Histamine trifluromethyl toluidine
MF: $C_{19}H_{25}F_3N_4O \bullet 2C_4H_4O_4$
FW: 614.6
Purity: ≥98%
UV/Vis.: λ_{max}: 250 nm
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

HTMT (maleate) is supplied as a solid. A stock solution may be made by dissolving the HTMT (maleate) in the solvent of choice, which should be purged with an inert gas. HTMT (maleate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of HTMT (maleate) in these solvents is approximately 10, 25, and 30 mg/ml, respectively.

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 HTMT (maleate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of HTMT (maleate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

HTMT is a histamine H_1 receptor agonist.[1] It also binds to the histamine H_4 receptor (K_i = 1.2 µM) but does not increase calcium mobilization in HEK293 cells expressing the receptor at 10 µM.[2] HTMT increases intracellular calcium and inositol phosphate levels (EC_{50}s = 19 and 30 µM, respectively) in human peripheral blood lymphocytes.[3] It increases proliferation of immortalized mouse small, but not large, cholangiocytes, when used at a concentration of 10 µM.[4] HTMT (10 µg/kg twice per day) increases levels of sheep red blood cell-induced IgG and IgM antibodies in rabbit serum.[5] It induces scratching in mice when administered at an intradermal dose of 0.2 µmol, an effect that is reduced by the H_1 receptor antagonist terfenadine (Item No. 20305).[6]

References

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2. Zhu, Y., Michalovich, D., Wu, H., *et al. Mol. Pharmacol.* **59(3),** 434-441 (2001).
3. Qiu, R., Melmon, K.L., and Kahn, M.M. *J. Pharmacol. Exp. Ther.* **253(3),** 1245-1252 (1990).
4. Francis, H., Glaser, S., Demorrow, S., *et al. Am. J. Physiol. Cell Physiol.* **295(2),** C499-C513 (2008).
5. Tripathi, T., Shahid, M., Khan, H.M., *et al. Pharmacol. Rep.* **62(5)** 917-925 (2010).
6. Bell, J.K., McQueen, D.S., and Rees, J.L. *Br. J. Pharmacol.* **142(2),** 374-380 (2004).

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