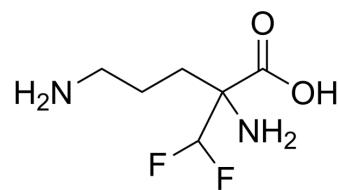


## Eflornithine hydrochloride

|                           |   |
|---------------------------|---|
| <b>Cat. No.:</b>          | HY-B0744A   |
| <b>CAS No.:</b>           | 68278-23-9  |
| <b>Molecular Formula:</b> | C <sub>6</sub> H <sub>13</sub> ClF <sub>2</sub> N <sub>2</sub> O <sub>2</sub>             |
| <b>Molecular Weight:</b>  | 218.63  |
| <b>Target:</b>            | Parasite  |
| <b>Pathway:</b>           | Anti-infection  |
| <b>Storage:</b>           | Please store the product under the recommended conditions in the Certificate of Analysis. |



### BIOLOGICAL ACTIVITY

|                                     |   |
|-------------------------------------|---|
| <b>Description</b>                  | Eflornithine hydrochloride is a specific, irreversible inhibitor of the enzyme ornithine decarboxylase. Eflornithine is a medication for the treatment of African trypanosomiasis and excessive facial hair growth in women.  |
| <b>IC<sub>50</sub> &amp; Target</b> | Trypanosoma   |
| <b>In Vivo</b>                      | Eflornithine is the only new molecule registered for the treatment of human African trypanosomiasis over the last 50 years. It is the drug used mainly as a back-up for melarsoprol refractory <i>Trypanosoma brucei gambiense</i> cases <sup>[1]</sup> . In subjects with excessive, unwanted facial hair, eflornithine 15% cream is superior to placebo in reducing hair growth. After 24 weeks' treatment, 58% of eflornithine and 34% of placebo subjects have at least some improvement in facial hirsutism <sup>[2]</sup> . The hair growth inhibitory activity of eflornithine is significantly enhanced when the eflornithine cream is applied onto a mouse skin area pretreated with microneedles <sup>[3]</sup> . Treatment of coarctation hypertensive rats with eflornithine results in a normalization of the contractile intensity to KCl and norepinephrine and relaxations to acetylcholine by 14 days of hypertension <sup>[4]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

### PROTOCOL

|   |  |
|---|--|
| <b>Animal Administration</b> <sup>[3]</sup> | Mice: The skin area where the hair is removed is then treated with the eflornithine hydrochloride 13.9% cream (-50 mg per mouse per treatment) using a spatula 2 times a day in an interval of at least 8 h for a maximum period of 36 days <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |
|---|--|

### CUSTOMER VALIDATION

- Front Oncol. 2021 Mar 11;11:636373.
- Cancer Nanotechnol. 2023 May 9.
- Commun Biol. 2019 May 8;2:171.
- Oncotargets Ther. 2020 Nov 17;13:11697-11709.
- RSC Adv. 2019, 9, 11026-11037.

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See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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- [1]. Burri C, et al. Eflornithine for the treatment of human African trypanosomiasis. *Parasitol Res.* 2003 Jun;90 Supp 1:S49-52.
  - [2]. Balfour JA, et al. Topical eflornithine. *Am J Clin Dermatol.* 2001;2(3):197-201; discussion 202.
  - [3]. Kumar A, et al. A method to improve the efficacy of topical eflornithine hydrochloride cream. *Drug Deliv.* 2016 Jun;23(5):1495-501.
  - [4]. Lipke DW, et al. Eflornithine alters changes in vascular responsiveness associated with coarctation hypertension. *Clin Exp Hypertens.* 1997 Apr;19(3):297-312.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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