# Efmitermant alfa

**Cat. No.:** HY-P99920

**CAS No.:** 1644543-31-6

**Target:** Others

**Pathway:** Others

**Storage:** Please store the product under the recommended conditions in the Certificate of Analysis.

## BIOLOGICAL ACTIVITY

**Description**

Efmitermant alfa (ACE-083) is a locally acting, follistatin-based fusion protein. Efmitermant alfa also is a muscle-promoting agent. Efmitermant alfa can be used for the research of muscle disorders[1][2].

**In Vitro**

ACE-083 (0-60 nM) has high affinity for heparin and extracellular matrix[1].
ACE-083 (0- 20 μg/mL) binds and potently neutralizes myostatin, activin A, activin B and growth differentiation factor 11 (GDF11) [1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

ACE-083 (i.m.; 0-100 μg; twice weekly for 4 weeks) causes localized, dose-dependent hypertrophy of the injected muscle in wild-type mice and mouse models of Charcot-Marie-Tooth disease (CMT) and Duchenne muscular dystrophy[1].
ACE-083 (i.m.; 0-100 μg; twice weekly for 4 weeks) also increases the force of isometric contraction in situ by the injected tibialis anterior muscle in wild-type mice and disease models and increased ankle dorsiflexion torque in CMT mice[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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| Animal Model: | Wild-type mice; CMT mice; mdx mice[1] |
| Dosage: | 1, 3, 10, 30 and 100 μg |
| Administration: | intramuscular; twice weekly for 4 weeks |
| Result: | Increased the weight of the injected muscle in a dose-dependent manner and caused focal growth of skeletal muscle in wild-type mice without evidence of systemic effects.<br>Caused focal muscle hypertrophy accompanied by increased generation of absolute force, increased ankle dorsifexion torque and a benefcial change in a major biomarker of muscle atrophy.<br>Caused focal growth of the injected muscle and increased generation of absolute force. |

## REFERENCES

[1]. R S Pearsall, et al. Follistatin-based ligand trap ACE-083 induces localized hypertrophy of skeletal muscle with functional improvement in models of neuromuscular disease. Sci Rep. 2019 Aug 6;9(1):11392.

[2]. Jeffrey M Statland, et al. Randomized phase 2 study of ACE-083, a muscle-promoting agent, in facioscapulohumeral muscular dystrophy. Muscle Nerve



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