Asfotase alfa

Cat. No.:	HY-108786
CAS No.:	1174277-80-5
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description

Asfotase alfa (ENB-0040) is a bone-targeted genetically engineered glycoprotein. Asfotase alfa increases the survival rate, bone mineralization and bone length and prevents mineralization defects of the feet, rib cage, lower limbs, jaw bones in $Akp2^{-/-}$ knockout mice. Asfotase alfa can be used for the research of perinatal, infantile, and juvenile-onset hypophosphatasia (HPP)[1].

In Vivo

Asfotase alfa (0.5-8.2 mg/kg; s.c. once daily for 43 days) shows dose-response relationships that strongly support the pharmacological efficacy for HPP[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	$Akp2^{-/-}$ knockout mice[1]
Dosage:	0.5, 2.0 and 8.2 mg/kg
Administration:	Subcutaneous injection; once daily for 43 days
Result:	Dose-dependently increased the survival rate of mice, bone mineralization and prevention of mineralization defects of the feet, rib cage, lower limbs, jaw bones, the median survival, body weight, and bone length. Showed a clear relationship between daily dose and achieving a healthy BW and the ED_{80} (the dose that prevents bone defects in 80% of mice) was 3.2, 2.8 and 2.9 mg/kg/day for these sites. Remained increasing urinary PPi concentrations in all treatment groups.

REFERENCES

[1]. Yadav MC, et al. Dose response of bone-targeted enzyme replacement for murine hypophosphatasia. Bone. 2011 Aug;49(2):250-6.

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