

Luspatercept

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| Cat. No.: | HY-P99720 |
| CAS No.: | 1373715-00-4 |
| Target: | TGF-beta/Smad |
| Pathway: | Stem Cell/Wnt; TGF-beta/Smad |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. |

BIOLOGICAL ACTIVITY

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| Description | Luspatercept (ACE-536) is a recombinant modified ActRIIB fusion protein that binds with transforming growth factor β superfamily ligands. Luspatercept increases the erythrocyte numbers and promotes maturation of erythroid precursors. Luspatercept binds with GDF11 and inhibits Smad2/3 signaling. Luspatercept can be used for the research of anemia ^[1] . | | | | | | | | |
| In Vitro | Luspatercept (0.1-1000 ng/mL) inhibits Smad2 and Smad 3 signaling induced by GDF11 and GDF8 in A204 cells ^[1] . Luspatercept binds with GDF11, GDF8, activin B, BMP10 and BMP6 ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. | | | | | | | | |
| In Vivo | <p>Luspatercept (0.1-60 mg/kg, s.c.; 10 mg/kg, i.v.; twice weekly for 8 weeks) increases red blood cell (RBC) count, hemoglobin levels and hematocrit in mice, rats and monkeys^[1].</p> <p>Luspatercept (10 mg/kg; s.c., once) reduces erythroid burst forming units (BFU-Es) and erythroid colony-forming units (CFU-Es) from bone marrow and spleen of C57BL/6 mice^[1].</p> <p>Luspatercept (10 mg/kg; i.p., once) inhibits Smad2/3 phosphorylation in mouse spleen^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>C57BL/6 mice^[1]</td> </tr> <tr> <td>Dosage:</td> <td>0.1, 0.3, 1, 3 and 10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Subcutaneous injection and intravenous injection; 0.1-10 mg/kg (C57BL/6 mice, s.c.), 6-60 mg/kg (Sprague Dawley rats, s.c.), 0.4-30 mg/kg (cynomolgus monkeys, s.c.), 10 mg/kg, (cynomolgus monkeys, i.v.); twice weekly for 8 weeks</td> </tr> <tr> <td>Result:</td> <td>Dose-dependently increased the level of RBC, hemoglobin and hematocrit in mice, rats and monkeys.</td> </tr> </table> | Animal Model: | C57BL/6 mice ^[1] | Dosage: | 0.1, 0.3, 1, 3 and 10 mg/kg | Administration: | Subcutaneous injection and intravenous injection; 0.1-10 mg/kg (C57BL/6 mice, s.c.), 6-60 mg/kg (Sprague Dawley rats, s.c.), 0.4-30 mg/kg (cynomolgus monkeys, s.c.), 10 mg/kg, (cynomolgus monkeys, i.v.); twice weekly for 8 weeks | Result: | Dose-dependently increased the level of RBC, hemoglobin and hematocrit in mice, rats and monkeys. |
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| Result: | Dose-dependently increased the level of RBC, hemoglobin and hematocrit in mice, rats and monkeys. | | | | | | | | |

REFERENCES

[1]. Suragani RN, et al. Transforming growth factor- β superfamily ligand trap ACE-536 corrects anemia by promoting late-stage erythropoiesis. Nat Med. 2014 Apr;20(4):408-14.

Caution: Product has not been fully validated for medical applications. For research use only.

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