

Efdamrofusp alfa

Cat. No.:	HY-P99905
CAS No.:	2375661-82-6
Target:	VEGFR
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Efdamrofusp alfa is a bispecific fusion protein. Efdamrofusp alfa is capable of neutralizing both VEGF isoforms and C3b/C4b. Efdamrofusp alfa can be used for the research of neovascular age-related macular degeneration (nAMD) and other complement-related ocular conditions ^[1] .								
In Vitro	<p>Efdamrofusp alfa (0.135 mg/mL; 0, 6, 12, or 24 h) suppresses endothelial cell migration and tube formation^[1]. Efdamrofusp alfa (0-1000 µg/mL) inhibits complement activation in vitro^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Migration Assay ^[1]</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Cell Line:</td> <td>Human primary umbilical vein endothelial cell (HUVEC)</td> </tr> <tr> <td>Concentration:</td> <td>0.135 mg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>0, 6, 12, or 24 h</td> </tr> <tr> <td>Result:</td> <td>Showed a 20.91% reduction in migration.</td> </tr> </table>	Cell Line:	Human primary umbilical vein endothelial cell (HUVEC)	Concentration:	0.135 mg/mL	Incubation Time:	0, 6, 12, or 24 h	Result:	Showed a 20.91% reduction in migration.
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In Vivo	<p>Efdamrofusp alfa (13.5 µg; 3 days) inhibits activation of the complement system in a mouse model of laser-induced CNV^[1]. Efdamrofusp alfa (1.35 mg; single intravitreal injection) shows favorable safety profiles and exhibited antiangiogenic efficacy in a nonhuman primate laser-induced CNV model^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Animal Model:</td> <td>C57BL/6J mice^[1]</td> </tr> <tr> <td>Dosage:</td> <td>13.5 µg; 13.0 µg</td> </tr> <tr> <td>Administration:</td> <td>3 days; 7 days</td> </tr> <tr> <td>Result:</td> <td> Significantly reduced C3d deposition. Reduced vascular leakage at 7 days after laser-induced injury. Significantly suppressed CNV formation 7 days after laser-induced injury. Reduced the concentrations of vitreous VEGF-A. </td> </tr> </table>	Animal Model:	C57BL/6J mice ^[1]	Dosage:	13.5 µg; 13.0 µg	Administration:	3 days; 7 days	Result:	Significantly reduced C3d deposition. Reduced vascular leakage at 7 days after laser-induced injury. Significantly suppressed CNV formation 7 days after laser-induced injury. Reduced the concentrations of vitreous VEGF-A.
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Animal Model:	Rhesus monkeys ^[1]
Dosage:	1.35 mg
Administration:	Single intravitreal injection
Result:	Decreased the CNV leakage at 14 and 28 days and effectively reduced CNV volume 28 days.

CUSTOMER VALIDATION

- ArchaeGraph. 2023 Jul.

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REFERENCES

[1]. Shiqi Yang, et al. Targeting C3b/C4b and VEGF with a bispecific fusion protein optimized for neovascular age-related macular degeneration therapy. *Sci Transl Med.* 2022 Jun;14(647):eabj2177.

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

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