Proteins

Product Data Sheet

(E)-C-HDMAPP ammonium

Cat. No.: HY-134950 CAS No.: 933030-60-5 Molecular Formula: $C_6H_{23}N_3O_7P_2$

Molecular Weight: 311.21

Target: **TNF** Receptor Pathway: **Apoptosis**

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

Analysis.

NH₃ NH₃ NH₃

BIOLOGICAL ACTIVITY

Description	(E)-C-HDMAPP ammonium, is a potent phosphoantigen in ammonium form as well as a pyrophosphonate form of (E)-HDMAPP. (E)-C-HDMAPP is also an effective activator of $\gamma\delta$ -T cells, induces T-cell stimulatory responses in vitro (EC ₅₀ =0.91 nM for TNF- α release) ^{[1][2]} .	
IC ₅₀ & Target	TNFRSF1A	
In Vitro	(E)-C-HDMAPP (compound 5E) (2 μ M) increases the release of TNF- α in primary polyclonal human V γ 9V δ 2 T-cell with stimulating bioactivity ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	(E)-C-HDMAPP (compound 5E) (0.02-10 mg/kg; i.v.; 15 d) provides a significant increase in $\gamma\delta$ -cells in cynomolgus model ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Nonhuman Primate Model in Cynomolgus $^{\left[1 ight]}$
	Dosage:	0.02 mg/kg, 0.1 mg/kg, 0.5 mg/kg, 2.5 mg/kg, 5 mg/kg, and 10 mg/kg
	Administration:	Intravenous injection; once with daily s.c. low doses IL-2 to sustain $\gamma\delta$ -T-cell proliferation, for 15 days
	Result:	Significantly increased $\gamma\delta$ -cells in vivo at 0.02 mg/kg. Reached maximal effect at 5 mg/kg and 10 mg/kg.

REFERENCES

[1]. Boëdec A, et al. Synthesis and biological activity of phosphonate analogues and geometric isomers of the highly potent phosphoantigen (E)-1-hydroxy-2-methylbut-2enyl 4-diphosphate. J Med Chem. 2008 Mar 27;51(6):1747-54.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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Page 2 of 2 www.MedChemExpress.com