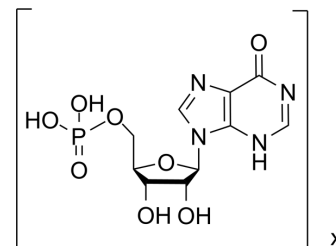


Polyinosinic acid

Cat. No.:	HY-148980
CAS No.:	30918-54-8
Molecular Formula:	(C ₁₀ H ₁₃ N ₄ O ₈ P) _x
Target:	Toll-like Receptor (TLR)
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Polyinosinic acid is a single stranded homonucleic acid, which is a Toll-like Receptor 3 (TLR3) ligand. Polyinosinic acid enhances cellular immune response through TLR3 and TRIF. Polyinosinic acid has potential applications in immune regulation ^[1] .
In Vitro	<p>Polyinosinic acid (50 µg/mL, 24 h) induces the expression of CD86, CD40 and MHC II in BALB/c B cells, the expression of CD86 and CD40 in BALB/c BMDC cells^[1].</p> <p>Polyinosinic acid (1-25 µg/mL, 48 h) enhances the uptake of [³H] thymidine by BALB/c B cells in a dose dependent manner^[1].</p> <p>Polyinosinic acid (50 µg/mL, 20 h) induces BALB/c BMDC cells, macrophages to secrete TNFα and IL-12, and BALB/c B cells, BMDC cells to secrete IFN. Polyinosinic acid increases expression of MHC II, CD86 in C57Bl/6, MyD88 knockout and TLR4 knockout mouse B cells^[1].</p> <p>Polyinosinic acid (50 µg/mL, 48 h) increases the uptake of thymidine by C57Bl/6, MyD88 knockout and TLR4 knockout mouse B cells^[1].</p> <p>Polyinosinic acid (25 µg/mL and 50 µg/mL, 24 h) induces BEAS-2B cells secrete IP-10 with dose-dependent manner^[1].</p> <p>Polyinosinic acid (50 µg/mL, 24-48 h) regulates the expression of CD86 and thymidine uptake in B cells of TRIF^{+/+} and TRIF^{-/-} mice through TRIF^[1].</p> <p>Polyinosinic acid (10-50 µg/mL, 20 h) increases BMDC cells derived from TLR3^{+/+} to secrete IFN and IFNα without affecting BMDC cells derived from TLR3^{-/-}^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Marshall-Clarke S, et al. Polyinosinic acid is a ligand for toll-like receptor 3. J Biol Chem. 2007 Aug 24;282(34):24759-66.

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

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