

Inorganic Pyrophosphatase

High-Quality Enzyme for all stages, from Research to Commercial Launch

The best shield to keep your polymerases safe, increase the yield of your reactions with a trustworthy biocatalyst

Our **-GMP grade-** Inorganic Pyrophosphatase (IPP), through its ability to hydrolyze inorganic pyrophosphate (PPI), can be applied across diverse fields such as the production of **therapeutic mRNA** and **DNA, diagnostics** and any kind of nucleotide incorporation reactions, among others.

No side activities interference

Precise control of side activities impacting the integrity of nucleotides is crucial for the synthesis of RNA/DNA. Canvax rigorous testing ensures that **endonuclease**, **exonuclease**, **RNase**, and **alkaline phosphatase** activities do not affect the performance of the reaction, guaranteeing optimal results.

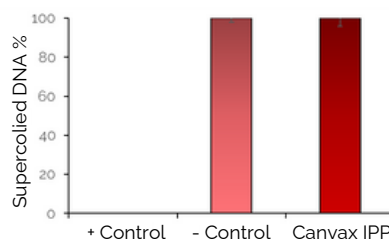


Fig 1. Endonuclease test. % Supercoiled DNA after incubation with an endonuclease, with no enzyme and a solution including Canvax's IPP.

Excellent Purity

Canvax has developed a stringent **purification protocol** for IPP to get rid of other proteins (**≥95%**) and their unwanted activities. The protocol includes also steps to eliminate the **host DNA**, maintaining the assay **accuracy, reliability** and **safety**.

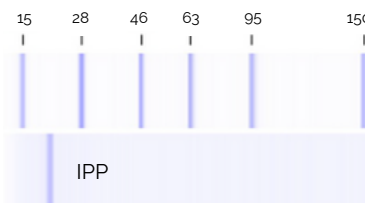


Fig 2. Biochip analysis of IPP purity (21.6 kDa)

Other controls

Canvax adhere to strict controls throughout the manufacturing process. This includes **avoiding** the use of **β-lactam antibiotics** and **materials of animal origin**, as well as stringent testing for **endotoxins, bioburden**, and security about **TSE/BSE**. All aimed at enhancing the safety of further manufacture products



Fig 3. Other test regarding security and purity of the enzyme

Better yields on NT reactions

Even a small amount of **Canvax's Inorganic Pyrophosphatase** can **significantly enhance RNA production** by protecting the polymerase from inactivation by inorganic pyrophosphates from nucleotide incorporation. This ensures you get the best from your *in vitro* transcription reaction.

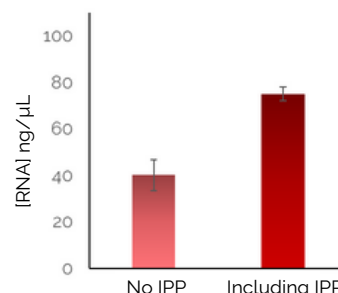


Fig 4. Comparative assay of a standard IVT reaction with and without the IPP from Canvax



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About us

Since 2001, Canvax has been an original Manufacturer & Supplier of the Most Innovative, **Enzymes, Kits, Buffers and Reagents**. Due our customizable and adaptable manufacturing structure, reduced overhead and capacity to BULK manufacturing with the highest quality standards, we are **leading the Life Science industry in terms of product performance, manufacturing capabilities and customer service**.

Quality & Certifications

Thanks to its **first-class manufacturing facilities**, Canvax offer **a solution for all the stages of your process development**. From **research-use** to **preclinical** studies or **clinical-grade** applications, assuring that the product quality won't represent a problem in the future.

4,500 m² of facilities certified for **ISO 9001, 13485** and **cGMP**.

Scalable & Customizable

Canvax proudly offer a **customized solution** ad-hoc to customer needs (**packaging, formulation, concentration...**) and at different volumes, from **lab-scale** (milligrams) to **commercial-scale** (grams to multi-grams) in a few weeks.

As original manufacturer, free of third-party IP, we ensure **streamlined agility**. A smooth, and secure solution with **short manufacturing times** and a **robust supply chain**

Experienced team

Our **60+ employees** (~35% PhD) have **wide experience** across all stages of the **biopharmaceutical value chain**, from research up to clinical stage. A dedicated personnel stands **ready to address any questions** you may have regarding the **integration of our enzymes into your processes**. Count on us to streamline your journey from discovery to commercialization, ensuring seamless and successful outcomes.

How to start?

If you are interested to learn more, please write us at info@canvaxbiotech.com or visit canvaxbiotech.com/contact-us. Our Business Development Team will contact you shortly.

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