

## PRODUCT DETAILS OF CARICA PAPAYA PDNVs (ITbio-PDNVs™)

(LYOPHILIZED FORM)

<b>Description</b>	<i>Carica Papaya</i> PDNVs (Plant-Derived NanoVesicles) are nano-sized vesicles surrounded by a lipid-enriched membrane and containing different natural compounds, including vitamins, antioxidants, proteins, nucleic acids and other metabolites. Exo Lab Italia® purify and concentrate PDNVs exclusively from <i>Carica Papaya</i> from Italian organic agriculture. The PDNVs are purified and concentrated using ultracentrifugation process in a sterile environment.
<b>Origin</b>	<i>Carica Papaya</i>
<b>PDNVs Number</b>	$2 \times 10^{10}$
<b>Size</b>	177.8 +/- 2.1 nm
<b>pH value</b>	3.61
<b>Form</b>	Lyophilized
<b>Reconstitution</b>	Reconstitute the lyophilized PDNVs with 500-1000 µl of sterile H <sub>2</sub> O or PBS
<b>Characterization</b>	PDNVs were characterized by concentration and size distribution, pH value, and Tetraspanin-8 (TET-8) expression.
<b>Shipping conditions</b>	2-8°C
<b>Storage Conditions</b>	ITbio-PDNVs™ can be stored at +4°C for a short time and at -80°C for no more than 1 year. It is recommended to aliquot PDNVs in the desired volume and store asap -80°C (active for up to 1 year). Avoid repeated freeze-and thaw cycles.
<b>Applications</b>	<ul style="list-style-type: none"> <li>- For <i>in vitro</i> and <i>in vivo</i> studies</li> <li>- Loading of molecules</li> <li>- Drug delivery system</li> </ul>
<b>Intended Use</b>	This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.
<b>BLS 1</b>	Exo Lab Italia srl works in respect of the normative of BLS 1
<b>Handling Procedures</b>	<p>Preparation of reconstituted PDNVs:</p> <ol style="list-style-type: none"> <li>1. Add 500-1000 µl of sterile H<sub>2</sub>O or PBS</li> <li>2. Mix by pipetting up and down and by vortexing</li> <li>3. Store at 4°C short term (see Storage Conditions section)</li> <li>4. For long term storage, prepare multiple aliquots for use and store at -20°C/-80°C (see</li> </ol>

	Storage Conditions section), avoiding freeze/thaw cycles.
<b>Material Citations</b>	If use of this material results in a scientific publication, please cite the material in the following manner: ITbio-PDNVs™ from <i>Carica Papaya</i> by Exo Lab Italia at Tecnopolo d'Abruzzo (AQ) - Italy
<b>References</b>	<a href="http://www.exolabitalia.com">www.exolabitalia.com</a>
<b>Warranty</b>	Exo Lab Italia ® represents and warrants: <ul style="list-style-type: none"> <li>(i) any declaration contained in this document, particularly in relation to the identity of the PDNVs and its composition;</li> <li>(ii) to identify the applicable legal requirements under the legislation on protection of workers and environment;</li> <li>(iii) to keep track of the quantities of PDNVs used and to be able to provide documentation (e.g., shipping documents, disposal records, process leakage information, etc.) that attests the fact that records of these quantities are kept;</li> <li>(iv) that PDNVs are not supplied by Exo Lab Italia ® to the public;</li> <li>(v) that the substance will only be handled by internal staff appointed by Exo Lab Italia ®.</li> </ul>
<b>Disclaimers</b>	<p>This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use. Any proposed commercial use is prohibited without a license from Exo Lab Italia ®.</p> <p>While Exo Lab Italia ® uses reasonable efforts to include accurate and up-to-date information on this product sheet, Exo Lab Italia ® makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Exo Lab Italia ® does not warrant that such information has been confirmed to be accurate or complete and the customer bears the sole responsibility of confirming the accuracy and completeness of any such information.</p> <p>This product is sent on the condition that the customer is responsible for and assumes all risk and responsibility in connection with the receipt, handling, storage, disposal, and use of the Exo Lab Italia srl product including without limitation taking all appropriate safety and handling precautions to</p>

	<p>minimize health or environmental risk. As a condition of receiving the material, the customer agrees that any activity undertaken with the Exo Lab Italia ®product and any progeny or modifications will be conducted in compliance with all applicable laws, regulations, and guidelines. This product is provided 'AS IS' with no representations or warranties whatsoever except as expressly set forth herein and in no event shall Exo Lab Italia ®, its parents, subsidiaries, directors, officers, agents, employees, assigns, successors, and affiliates be liable for indirect, special, incidental, or consequential damages of any kind in connection with or arising out of the customer's use of the product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, Exo Lab Italia ® is not liable for damages arising from the misidentification or misrepresentation of such materials.</p>
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