

**CERTIFICATE OF ANALYSIS**

<b>Product:</b>	Carrier-iRNA
<b>Catalog No:</b>	C078, C079
<b>Lot No:</b>	C078122024
<b>Date of Expiry:</b>	12/2024
<b>Composition:</b>	Synthetic RNA homopolymer (polyinosinic acid) in sterile water (18 Mohm.cm; ~10 mg/ml).
<b>Storage temperature:</b>	At temperature $-20 \pm 5^{\circ}\text{C}$ . Material can be repeatedly defrosted.
<b>Purity of polyinosinic acid:</b>	> 98% by TLC.
<b>UV (Lambda max):</b>	248,5 nm.
<b>Functional Test:</b>	<p>Each batch of Carrier-iRNA is analyzed in several assays. For the assays, DNA or RNA is examined in the Carrier Assay Buffer (CAB): 10 mM Tris-HCl, 2 mM MgCl<sub>2</sub>, 1 mM dithiothreitol, pH 7.5 at 37°C.</p> <p>Nucleic acid precipitation assay. Economy DNA marker (Cat. No. D071; 2.5 µl) is mixed with 0.2 ml 10 mM Tris buffer, pH 8.0 + 1 mM EDTA, 1 µl Carrier-iRNA, 20 µl of 3 M sodium acetate, pH 5.2, and 0.6 ml of 96% Ethanol. After 30 minutes at 2 - 8°C the mixture is centrifuged for 10 min at 12,000 x g, analyzed by electrophoresis in agarose gel with ethidium bromide and observed under UV light. More than 90% of all components of the DNA marker is recovered in the precipitate.</p> <p>Nick activity assay. Plasmid pUC19 (1 µg) in 0.2 ml CAB is incubated with Carrier-iRNA (50 µg) for 4 hours at 37°C, followed by electrophoresis in agarose gel with ethidium bromide. No nicking activity is observed.</p> <p>Ribonuclease assay. RNA (1 µg) in 50 µl CAB with Carrier-iRNA (50 µg) is incubated for 1 hour at 37°C, followed by electrophoresis in agarose gel with ethidium bromide. No changes in properties of RNA are observed under UV light.</p>
<b>Result:</b>	passed

**FOR RESEARCH USE****APPROVED DATE:** 03.05.2023

Manager: Hana Těšitelová