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Hsa-miR-342-3p Probe

Catalog No. FM342-3p-25
Description: one vial of 0.3 mL of probe in hybridization buffer

Intended Use:
This probe is intended for research use only.

Principle:
MicroRNAs (miRNAs) are endogenous, non-coding small RNA molecules that play important role in controlling gene expression. They are involved in multiple biological functions and disease progression including cancer. miRNAs either act as tumor suppressors or oncogenes depending on function of their target gene. Aberrant expression of miRNA has been reported in different cancer types; hence, *in situ* detection of miRNA provides important insight for diagnosis, prognosis, and disease management. FOXM1 is an oncogenic factor. Li et al., reported that FOXM1 is directly targeted by miR-342-3p, which is downregulated along with its host gene, EVL in human cervical cancer tissues compared to the adjacent normal tissues. Functional studies suggested that overexpression of miR-342-3p inhibits cell proliferation, migration, and invasion in cervical cell lines. miR-342-3p was identified as upregulated in IBS patients compared to healthy controls. The functional role of the miR-342-3p involves inflammatory, pain signaling, smooth muscle contractility, and GI tract motility pathways. Xie et al., showed that miR-342-3p is downregulated in human non-small cell lung cancer (NSCLC) cell lines and tissues and its overexpression induces significant inhibition of NSCLC cell proliferation, invasion, and tumor growth in nude mice. In addition, miR-342-3p acts as a tumor suppressor in NSCLC through the repression of RAP2B via interaction with its 3'-UTR region.

Please visit the following link for more information about Hsa-miR-342-3p. https://www.ncbi.nlm.nih.gov/gene/442909

Summary and Explanation
miRNAs play an important role in many biological processes, including differentiation and development, cell signaling, and response to infection. Recent research have shown that human miRNA genes are frequently located in cancer-associated genomic regions, while perturbed miRNA expression patterns have been observed in many human cancers. A number of oncogenes and tumor suppressor genes were found to be the targets of miRNAs and global miRNA expression signatures were able to distinguish cancerous and non-cancerous tissues. Therefore, miRNA profiles can serve as highly specific markers for diagnosis, prognosis, disease monitoring, as well as prediction of therapeutic response. miRNAs are remarkably stable molecules and are well preserved in formalin-fixed, paraffin-embedded (FFPE) as well as frozen specimens. Early diagnosis, detection, and assessment of the disease progression are essential for disease management, especially in tumor patients, where timely therapeutic interventions are extremely critical.

Quality Control

This product is quality control tested at BioGenex according to the suggested procedure. The recommended positive control tissue(s) for this miRNA probe is human testis (FB-HM342-3P).

Recommended protocol and parameters for Hsa-miR-342-3p probe
Automated Protocol:
https://omicsveu.com/wp-content/uploads/Brochures/914-0071.0.pdf
Manual Protocol:
https://omicsveu.com/wp-content/uploads/Brochures/914-0072.0.pdf
For more information:
https://omicsveu.com/wp-content/uploads/Brochures/914-0073.0.pdf

Bibliography
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8°C / 2°C	Temperature Limitation	RUO	For Research Use Only
	Use By Date	LOT	Batch Code
NON STERILE	Non-Sterile		Consult Instructions for Use
REF	Catalogue Number		BioGenex

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