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Hsa-miR-23a Probe

Catalog No. FM023a-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. miR-23a is known to play important role in the development of cancers and deregulated in various hematological malignancies and solid tumors. Patients with diffused large B-cell lymphomas have shown positive correlation with higher expression of miR-23a and shorter survival rate compared to patients with lower expression level. miR-23a is shown to participate in the invasion of pancreatic ductal adenocarcinoma cells into the mesothelial barrier and acts as oncogenic regulator for proliferation of pancreatic cell and apoptosis by targeting apoptotic protease activating factor 1 protein. In hepatocellular carcinoma cells, miR-23a has been observed to function as a growth-promoting and anti-apoptotic factor. In gastric adeno-carcinoma cells and tissues, upregulated miR-23a promoted aberrant cell proliferation activity by downregulating IL6 receptor expression. Additionally, in breast cancer it was shown to enhance disease progression by directly activating forkhead box protein M1 and histidine-rich glycoprotein at RNA level. These studies highlight the prognostic significance of miR-23a in clinical practice.

Please visit the following link for more information about Hsa-miR-23a. http://www.ncbi.nlm.nih.gov/gene/407010

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 are human GIST and reactive endomyometrium tissues (FB-HM23A).

Recommended protocol and parameters for Hsa-miR-23a 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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9. 10.1016/j.trsl.2014.10.001

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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