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Hsa-miR-765 Probe

Catalog No. FM765-25
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-765 as the first fulvestrant-driven, ERβ-regulated miRNA exhibiting significant tumor suppressor activities like fulvestrant, against prostate cancer cell growth via blockage of cell-cycle progression at the G2/M transition, and cell migration, and invasion, possibly via reduction of filopodia/intense stress-fiber formation. Fulvestrant was shown to upregulate miR-765 expression through recruitment of ERβ to the 5'-regulatory-region of hsa-miR-765. HMGA1, an oncogenic protein in prostate cancer, was identified as a downstream target of miR-765 and fulvestrant in cell-based experiments and a clinical study. Ali Sheikh et al., found that plasma level of miR-765 was significantly elevated in stable and unstable coronary artery disease patients compared with healthy subjects. These results suggest that plasma levels of miR-765 could be potential noninvasive biomarkers for the diagnosis of geriatric CAD patients. It has been reported that circulating miR-765 levels were markedly increased in patients with traumatic brain injury (TBI) and pregnant women with neural tube defects (NTDs) fetuses, suggesting that miR-765 may be used as a useful clinical biomarker for diagnosis of TBI and NTDs.

Please visit the following link for more information about Hsa-miR-765. https://www.ncbi.nlm.nih.gov/gene/768220

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 lung (FB-HM765).

Recommended protocol and parameters for Hsa-miR-765 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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