

Hsa-miR-LET-7e Probe

Catalog No. FM007e-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-let-7 was the first known human miRNA. Let-7 miRNA family members are highly conserved across species both in sequence and function and misregulation of let-7 leads to a less differentiated cellular state and the development of cell-based diseases such as cancer. miR-Let-7e, an apoptomir, is one of the miRNA in Let-7 family, which is reported to be expressed in different cancers viz. ovarian carcinoma, breast cancer, etc. In breast cancer, let-7e expression is linked to tumor suppression and in tumors it is found to be associated with hypermethylation. It is shown to induce apoptosis and reduce tumor cell viability and low miR-let-7e expression is also associated with poor prognosis. Decreased expression of miR-let-7e is linked with increased drug resistance of tumor in ovarian cancer

Please visit the following link for more information about Hsa-miR-LET-7e. <http://www.ncbi.nlm.nih.gov/gene/406887>

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 breast and lung (FB-HM007E).

Recommended protocol and parameters for Hsa-miR-LET-7E 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

- <https://doi.org/10.1002/emmm.201100209>
- <https://doi.org/10.1186/1423-0127-19-90>
- <https://doi.org/10.1016/j.ymeth.2007.10.008>
- [10.1007/978-1-60761-657-3_18](https://doi.org/10.1007/978-1-60761-657-3_18)
- [10.1007/s13238-013-3001-5](https://doi.org/10.1007/s13238-013-3001-5)
- [10.1261/rna.2006511](https://doi.org/10.1261/rna.2006511)
- <https://doi.org/10.1007/s11515-011-0990-4>
- [10.1016/j.tcb.2008.07.007](https://doi.org/10.1016/j.tcb.2008.07.007)
- [10.1074/jbc.M111.304865](https://doi.org/10.1074/jbc.M111.304865)
- <https://doi.org/10.1038/oncsis.2013.39>

	Temperature Limitation	RUO	For Research Use Only
	Use By Date	LOT	Batch Code
	Non-Sterile		Consult Instructions for Use
REF	Catalogue Number		BioGenex

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