

New miREIA kits from BioVendor

Open doors to microRNA biomarker world



miREIA is a novel immunoassay-based method for miRNA quantification. The assay can be performed using standard ELISA equipment

► hsa-miR-142-5p miREIA (Cat. No: RDM0013H)

hsa-miR-142-5p is upregulated in **leprosy** and several other diseases related to the **immune response**. Abnormal expression of this miRNA has been elaborated in various **tumors**. The expression of hsa-miR-142-5p was greatly overexpressed in **cutaneous squamous cell carcinoma (cSCC)**. It was also confirmed that inhibition of this miRNA repressed cSCC cell growth and induced apoptosis, while upregulation exhibited a reverse phenomenon. miR-142-5p can trigger cancer stem cell-like properties of cSCC.

Increased level of miR-142-5p was observed in the serum of **colorectal cancer** patients compared to healthy controls. Elevated expression of this miRNA was revealed also in renal cell carcinoma tissues and cell lines.

Dysregulated expression of miR-142-5p contributes to the pathogenesis of **Alzheimer disease** by triggering synaptic dysfunction associated with amyloid beta-mediated pathophysiology.

► hsa-miR-93-5p miREIA (Cat. No: RDM0002H)

hsa-miR-93-5p is an **onco-miRNA**. Up-regulation of miR-93-5p is correlated with worse clinic-pathological features and can serve as an independent marker for poor prognosis in patients with **non-small cell lung cancer**. NSCLC cell proliferation, migration, and invasion were significantly stimulated by miR-93-5p upregulation and inhibited by miR-93-5p downregulation. miR-93-5p was also up-regulated in **non-muscle invasive bladder cancer**.

Increased expression of circulating miR-93-5p in women with **polycystic ovary syndrome** may represent a novel non-invasive biomarker for diagnosis.

► hsa-miR-21-5p miREIA (Cat. No: RDM0001H)

hsa-miR-21-5p is a circulating miRNA, strongly conserved through evolution, which has been extensively investigated in a range of studies of various diseases, such as **cancer, cardiovascular disease, pulmonary diseases**, regulation of **immunological processes**, and many others. hsa-miR-21-5p is typical **onco-miRNA**. Up-regulated hsa-miR-21-5p could promote tumor growth, metastasis and invasion and reduce sensitivity to chemotherapy. Besides altered expression in various malignancies, this miRNA is highly expressed also in the **cardiovascular system**. hsa-miR-21-5p has been found to play important roles in **vascular smooth muscle cell proliferation and apoptosis, cardiac cell growth and death, calcific aortic valve disease and cardiac fibroblast functions**.

► hsa-miR-150-5p miREIA (Cat. No: RDM0004H)

hsa-miR-150-5p is linked with number of **cancers**. It was up-regulated in plasma of **melanoma** patients. Findings also demonstrate miR-150-5p as a putative novel biomarker of inflammatory active disease with the potential to be used for early diagnosis of **multiple sclerosis**. miR-150-5p is downregulated in children with **tuberculosis**. In **aplastic anemia**, levels of miR-150-5p were elevated, compared to healthy controls.

miR-150-5p is expressed in the lymph nodes, spleen and thymus and it is highly up-regulated during lymphocyte maturation and down-regulated during the activation of mature B and T cells. In vivo studies show that miR-150 is released in the external environment after T cell activation and this may cause an increase of its blood levels during immune system stimulation.

► hsa-miR-191-5p miREIA (Cat. No: RDM0005H)

hsa-miR-191-5p is dysregulated in many types of **cancers** (>20) and various other diseases like **T2DM, pulmonary hypertension, Crohn's and Alzheimer's diseases**. miR-191-5p regulates important cellular processes such as cell proliferation, differentiation and apoptosis. miR-191-5p is a promising disease biomarker and therapeutic target.

► hsa-miR-24-3p miREIA (Cat. No: RDM0012H)

hsa-miR-24-3p is linked with number of malignances. miR-24-3p is over-expressed in **hepatocellular carcinoma, nasopharyngeal carcinoma**, contribute to **ovarian cancer** cell chemoresistance, regulates **bladder cancer** cell proliferation, accelerate the migration and invasion and inhibit the apoptosis. In **colorectal adenocarcinoma**, elevated expression is a potentially adverse prognostic factor, where high expression predicts poor disease-free survival and overall survival.

Upregulated expression of miR-24-3p was observed in peripheral blood mononuclear cells of patients with **chronic obstructive pulmonary disease**.

The expression of miR-24-3p was upregulated in peripheral blood mononuclear cells (PBMCs) of patients with chronic obstructive pulmonary disease (COPD) compared with smokers without airflow limitation.

The plasma levels of hsa-miR-24-3p are downregulated in patients with **hypercholesterolemia** compared to controls.

Available miREIA kits

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|----------------------------|---------------------|--------------------------|---------------------|
| ➤ cel-miR-39-3p miREIA | (Cat. No: RDM0000C) | ➤ hsa-miR-146a-5p miREIA | (Cat. No: RDM0024H) |
| ➤ hsa-miR-1-3p miREIA | (Cat. No: RDM0019H) | ➤ hsa-miR-150-5p miREIA | (Cat. No: RDM0004H) |
| ➤ hsa-miR-let-7a-5p miREIA | (Cat. No: RDM0023H) | ➤ hsa-miR-155-5p miREIA | (Cat. No: RDM0017H) |
| ➤ hsa-miR-let-7b-5p miREIA | (Cat. No: RDM0027H) | ➤ hsa-miR-191-5p miREIA | (Cat. No: RDM0005H) |
| ➤ hsa-miR-15a-5p miREIA | (Cat. No: RDM0007H) | ➤ hsa-miR-192-5p miREIA | (Cat. No: RDM0035H) |
| ➤ hsa-miR-16-5p miREIA | (Cat. No: RDM0008H) | ➤ hsa-miR-197-3p miREIA | (Cat. No: RDM0010H) |
| ➤ hsa-miR-21-5p miREIA | (Cat. No: RDM0001H) | ➤ hsa-miR-203a-3p miREIA | (Cat. No: RDM0040H) |
| ➤ hsa-miR-23a-3p miREIA | (Cat. No: RDM0009H) | ➤ hsa-miR-210-3p miREIA | (Cat. No: RDM0029H) |
| ➤ hsa-miR-24-3p miREIA | (Cat. No: RDM0012H) | ➤ hsa-miR-222-3p miREIA | (Cat. No: RDM0014H) |
| ➤ hsa-miR-26b-5p miREIA | (Cat. No: RDM0028H) | ➤ hsa-miR-223-3p miREIA | (Cat. No: RDM0015H) |
| ➤ hsa-miR-29a-3p miREIA | (Cat. No: RDM0034H) | ➤ hsa-miR-324-5p miREIA | (Cat. No: RDM0032H) |
| ➤ hsa-miR-92a-3p miREIA | (Cat. No: RDM0020H) | ➤ hsa-miR-361-5p miREIA | (Cat. No: RDM0030H) |
| ➤ hsa-miR-93-5p miREIA | (Cat. No: RDM0002H) | ➤ hsa-miR-423-3p miREIA | (Cat. No: RDM0021H) |
| ➤ hsa-miR-100-5p miREIA | (Cat. No: RDM0039H) | ➤ hsa-miR-423-5p miREIA | (Cat. No: RDM0033H) |
| ➤ hsa-miR-126-3p miREIA | (Cat. No: RDM0018H) | ➤ hsa-miR-451a miREIA | (Cat. No: RDM0006H) |
| ➤ hsa-miR-129-5p miREIA | (Cat. No: RDM0031H) | ➤ hsa-miR-486-5p miREIA | (Cat. No: RDM0022H) |
| ➤ hsa-miR-136-5p miREIA | (Cat. No: RDM0025H) | ➤ hsa-miR-625-5p miREIA | (Cat. No: RDM0041H) |
| ➤ hsa-miR-137-3p miREIA | (Cat. No: RDM0037H) | ➤ hsa-miR-5100 miREIA | (Cat. No: RDM0042H) |
| ➤ hsa-miR-142-5p miREIA | (Cat. No: RDM0013H) | ➤ hsa-piR-5937 miREIA | (Cat. No: RDM0038H) |
| ➤ hsa-miR-145-5p miREIA | (Cat. No: RDM0003H) | ➤ mmu-miR-7052-5p miREIA | (Cat. No: RDM0026M) |

For more information please visit www.biovendor.com/mirna



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