

BioVendor new products

April, 2019

Dear customer, we would like to introduce our new products and hope you will find them interesting. Below is a list of events, in which we plan to participate in 2019:

AACC 2019 (04 \ 08 \ 2019 - 08 \ 08 \ 2019 - Anaheim)

MEDICA 2019 (18 \ 11 \ 2019 - 21 \ 11 \ 2019 - Düsseldorf)

miRNA

NEW miREIA KITS

CAT. NO.	STATUS	NAME	ASSAY FORMAT
RDM0028H	New	hsa-miR-26b-5p miREIA	miREIA - miRNA enzyme immunoassay
RDM0020H	New	hsa-miR-92a-3p miREIA	miREIA - miRNA enzyme immunoassay
RDM0017H	New	hsa-miR-155-5p miREIA	miREIA - miRNA enzyme immunoassay
RDM0014H	New	hsa-miR-222-3p miREIA	miREIA - miRNA enzyme immunoassay
RDM0026M	New	mmu-miR-7052-5p miREIA	miREIA - miRNA enzyme immunoassay

miREIA - miRNA Enzyme Immunoassay

» FEATURED PRODUCT: hsa-miR-155-5p miREIA

It is well-known that miR-155-5p is a **proinflammatory, oncogenic** miRNA, often associated with inflammation, cancer, and cardiovascular diseases.



Immune system

- Mainly expressed in the thymus and spleen
- Highly expressed in activated B and T cells as well as in macrophages miR-155-5p controls the function of lymphocytes and dendritic cells and is critical for normal immune function
- 140 target genes encode for **immunomodulatory proteins, tumor-suppressor proteins, and inflammatory-related proteins**

Oncology

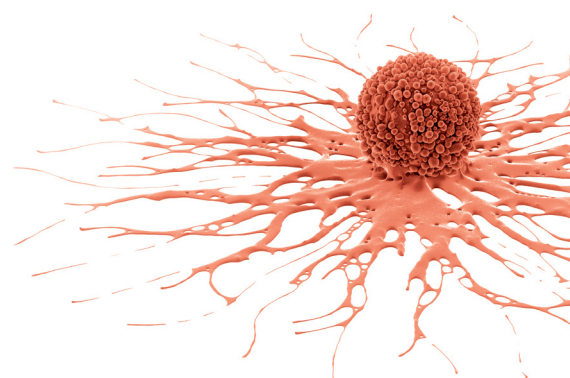
- In high levels in several solid tumors such as **lung cancer, breast cancer, thyroid carcinoma, cervical cancer, and pancreatic cancer**
- An indicator of **poor prognosis** for patients with these tumors.
- Overexpressed in hematological malignancies, such as **chronic lymphocytic leukemia (CLL)** pathogenesis and is a promising, independent biomarker of **unfavorable prognosis** in CLL

Gastrointestinal tract

- Highly expressed during Helicobacter pylori infection
- Increased expression in patients with **inflammatory bowel disease (IBD)**
- Increased expression in patients with **colorectal cancer (CRC)**.

For these and more BioVendor miREIA kits, please visit www.biovendor.com/mirna.

microRNAs (miRNAs) are a class of single-stranded non-coding RNA molecules with a length of 19-23 nucleotides. They play a role in negative post-transcriptional regulation by binding to complementary sequences on mRNA and blocking translation into protein.



miREIA is a BioVendor proprietary method based on combination of immunoassay and molecular biological principles. The main advantage is the **quantitative determination of miRNA** concentrations.

See more about [hsa-miR-155-5p miREIA](#)

IMMUNOASSAYS

NEW IMMUNOASSAYS

CAT. NO.	NAME	IVD/RUO	ASSAY FORMAT
RD191470200R	Human MyBPC3	RUO	Sandwich ELISA, Biotin-labelled antibody

» FEATURED PRODUCT: HUMAN MYOSIN BINDING PROTEIN-C3 (MyBPC3) ELISA

Cardiac MyBP-C may be more useful than the gold standard biomarker Cardiac Troponin I

Blood levels of the current gold standard cardiac biomarkers are very low during the **initial stages of myocardial infarction (MI)**, making early diagnosis difficult. **Plasma** levels of MyBPC3 are **significantly elevated in MI** patients. MyBPC3 levels increase from baseline **at 3 hours after MI** and **peak at 6 hours**. This is faster than for Cardiac Troponin I, which is normally detected 6-12 hours after the onset of MI.

Cardiac MyBPC (cMyBP-C, MyBPC3) is a 140 kDa structural protein that is present only in the heart. It is phosphorylated by several kinases. Phosphorylation of MyBPC3 regulates myocardial function and confers resistance to proteolysis, preserving cardiac function post-myocardial infarction.

Dephosphorylation at Ser-273 and Ser-282 facilitates MyBPC3 degradation and release of a 40 kDa N-terminal fragment (COC1f). This COC1f fragment is pathogenic within cardiac tissue and it is released into the circulation. It was later established in vivo that the COC1f fragment could cause cardiac dysfunction and heart failure.

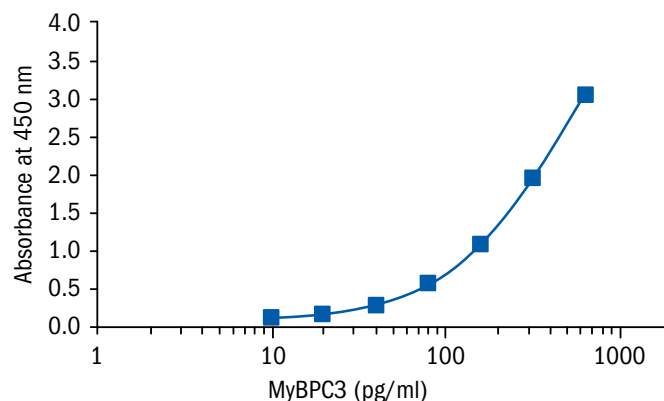
Importantly, it was shown that plasma MyBPC3 levels are significantly raised in humans with hypertrophic cardiomyopathy undergoing trans-coronary ablation of septal hypertrophy.

- Validated for human serum and citrate plasma
- Excellent sensitivity (LOD 1.74 pg/ml)

RELATED PRODUCTS

[RD172470100](#) Myosin-binding protein C cardiac-type Human *E. coli*

See more about [MyBPC3 Human ELISA](#)



NEW PROTEINS

CAT. NO.		NAME	SIZE	SOURCE
RD272587025	Mouse	Adiponectin, Tag free	0.025 mg	HEK293
RD272587100	Mouse	Adiponectin, Tag free	0.1 mg	HEK293
RD172091025	Human	Adiponectin, Trimeric form	0.025 mg	HEK293
RD1725740100	Human	CCL17	0.1 mg	<i>E. coli</i>
RD162034100	Human	Clusterin NATIVE	0.1 mg	Human serum
RD176034100	Human	Clusterin, Tag free	0.1 mg	HEK293
RD172566025	Human	Interleukin-2	0.025 mg	<i>E. coli</i>
RD172566100	Human	Interleukin-2	0.1 mg	<i>E. coli</i>
RD172571100	Human	Interleukin-7	0.1 mg	<i>E. coli</i>
RD172058025	Human	Myostatin Propeptide, Tag free	0.025 mg	<i>E. coli</i>
RD172562025	Human	Neurofilament light polypeptide	0.025 mg	<i>E. coli</i>

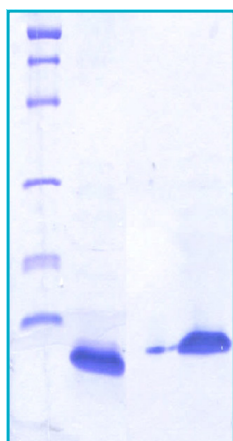
» FEATURED PRODUCT: HUMAN CCL17, *E. COLI*

Chemokine (C-C motif) ligand 17 (CCL17)/thymus and activation-related chemokine (TARC) is a **CC chemokine secreted by PBMCs** and various subsets of **monocyte-derived dendritic cells**, including thymic dendritic cells and endothelial cells. CCL17 interacts with CCR4 and CCR8 to induce the chemoattraction of activated Th2 cells, basophils, and NK cells. This chemokine specifically binds and induces chemotaxis in T cells and elicits its effects by interacting with the chemokine receptor CCR4. The gene for CCL17 is located on chromosome 16, in humans, along with other chemokines called CCL22 and CX3CL1.

CCL17 is **associated** with various mechanisms of the **immune system** and plays **vital roles** in such disorders as **allergen-induced asthma** and **autoimmune diseases**.

BioVendor Human CCL17 is a recombinant protein expressed in *E. coli*.

Total 78 AA. MW: 15 kDa (calculated). UniProtKB acc.no. Q92583 (Ala24-Ser94). N-terminal His-tag (7 extra AA). Endotoxin < 0.1 EU/µg. Protein identity was confirmed by LC-MS/MS.



14 % SDS-PAGE separation of Human CCL17, *E. coli*:

1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa
2. Reduced and boiled sample, 2.5 µg/lane
3. Non-reduced and non-boiled sample, 2.5 µg/lane

See more about [CCL17 Human *E. coli*](#)

NEW ANTIBODIES

CAT. NO.		PRODUCT	REACTIVE SP.	SIZE
RD1820261003G6	Anti-Human	Cardiotrophin-1	Mouse Monoclonal Antibody, Clone: 3G6D9	0.1 mg
RD1820341008H4-01	Anti-Human	Clusterin	Mouse Monoclonal Antibody, Clone: 8H4	0.1 mg
RD484488100	Anti-Canine	Fibroblast Growth Factor 21, Tag free	Sheep Polyclonal Antibody	0.1 mg

» FEATURED PRODUCTS:

ANTI-HUMAN CLUSTERIN MOUSE MONOCLONAL ANTIBODIES, Clone: 8H4

Innovated versions of highly popular with customers mouse MAb anti-human Clusterin, clone 8H4 is newly produced in vitro and isolated from the cell culture supernatant.

Clusterin (Apolipoprotein J, ApoJ) is an extracellular **chaperone protecting cells from stress induced by degraded and misfolded protein precipitates**. It is able to bind and form complexes with numerous partners such as immunoglobulins, lipids, heparin, bacteria, complement components, paraoxonase, beta amyloid, leptin, and others. Clusterin has been ascribed a plethora of functions such as phagocyte recruitment, aggregation induction, complement attack prevention, apoptosis inhibition, membrane remodeling, lipid transport, hormone transport and/or scavenging, matrix metalloproteinase inhibition.

Clusterin is **up- or downregulated** on the mRNA or protein level in many pathological and clinically relevant situations including **cancer, organ regeneration, infection, Alzheimer disease, retinitis pigmentosa, myocardial infarction, renal tubular damage, autoimmunity**, and others.

Clusterin is a 75–80 kD disulfide-linked heterodimeric protein containing about 30% of N-linked carbohydrate rich in sialic acid, but truncated forms targeted to the nucleus have also been identified. Across a broad range of species, clusterin shows 70% to 80% of sequence homology. It is ubiquitously expressed in most mammalian tissues and can be found in plasma, milk, urine, cerebrospinal fluid and semen.



Applications: ELISA

See more about [Clusterin Human MAb, Clone: 8H4](#)

RELATED PRODUCTS

- [RD491034200R](#) Clusterin Canine ELISA
- [RD194034200R](#) Clusterin Human ELISA
- [RD391034200CS](#) Clusterin Rat ELISA
- [RD472034100](#) Clusterin Canine *E. coli*
- [RD472034100-HEK](#) Clusterin Canine HEK293
- [RD172034100](#) Clusterin Human HEK293
- [RD176034100](#) Clusterin Human HEK293 Tag free
- [RD172034100-S](#) Clusterin Human NATIVE, Human Plasma
- [RD162034100](#) Clusterin Human NATIVE, Human Serum
- [RD372034100](#) Clusterin Rat *E. coli*
- [RD481034100](#) Clusterin Canine, Rabbit Polyclonal Antibody
- [RD484034100](#) Clusterin Canine, Sheep Polyclonal Antibody
- [RD182034110-H3](#) Clusterin Human, Mouse Monoclonal Antibody, Clone: Hs-3
- [RD381034100](#) Clusterin Rat, Rabbit Polyclonal Antibody

NEW EXTRACELLULAR MATRIX ASSAYS

CAT. NO.		PRODUCT	ASSAY FORMAT
<u>RBCK1000</u>	Multispecies	Keratin Orange, (110 assays) [Standard Kit]	Colorimetric assay
<u>RBCK5000</u>	Multispecies	Keratin Orange, (440 assays) [Economy Kit]	Colorimetric assay

For these and more Extracellular Matrix Assays, please visit www.biovendor.com/extracellular-matrix-assays.