

# BioVendor new products

October 23, 2014

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 2014:

**15. ÖAG Jahrestagung** (24 \ 10 \ 2014 - 25 \ 10 \ 2014 - Vienna)

**NCA NUBIN 2014 Symposium** (29 \ 10 \ 2014 - 30 \ 10 \ 2014 - Amsterdam)

**ÖGAI Jahrestagung** (06 \ 11 \ 2014 - 08 \ 11 \ 2014 - Salzburg)

**5. Jahrestagung der Österreichischen Gesellschaft für Laboratoriumsmedizin und Klinische Chemie** (11 \ 11 \ 2014 - 14 \ 11 \ 2014 - Salzburg)

**MEDICA** (12 \ 11 \ 2014 - 15 \ 11 \ 2014 - Düsseldorf)

**2nd World Congress on Clinical Lipidology** (05 \ 12 \ 2014 - 07 \ 12 \ 2014 - Vienna)

## IMMUNOASSAYS

### » FEATURED PRODUCT: HUMAN GLUCOSE-REGULATED PROTEIN 78 ELISA

**Human Glucose Regulated Protein 78 (GRP78)** also known as BiP (immunoglobulin heavy-chain binding protein) or HSPA5 is a constitutively expressed protein from the HSP70 heat-shock protein family. It exists in two isoforms, the standard isoform of 78 kDa constituted of 636 amino acids and the short GRP78va isoform of 62 kDa.

Human GRP78 is a multifunctional protein involved in protein folding, **calcium binding in the endoplasmic reticulum (ER), cellular defense mechanism, and antiapoptotic response of cells**. It was reported to function as a cell-surface receptor in some cells. It is predominantly expressed **in the endoplasmic reticulum**, but it has also been found in other **cellular compartments and in extracellular fluids**.

The expression of GRP78 is not tissue-specific. It is induced by **hypoglycemia, hypoxia** and some other **cytotoxic stresses**. Accordingly, elevated expression of GRP78 was reported under pathological conditions in **tissues with insufficient blood supply** (e.g. myocardial infarction, pre-eclampsia, tumors), but also different **nephropathies, neuropathies or atherosclerosis**. It is believed to be one of the **key regulators of cellular invasion and angiogenesis in developing precancerous and cancerous tissues**, and it has been detected in the extracellular microenvironment of these tissues. Experiments in mouse models revealed that it is required for optimal **metabolic turnover of lipids and glucose**.

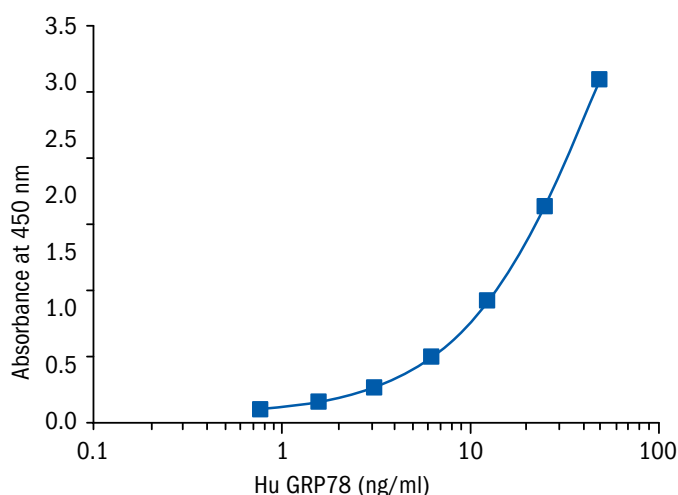
GRP78 protein and its antibodies circulate in the blood of healthy individuals in small amounts. The precise mechanism of GRP78 relocation from tissues into the blood stream is not fully understood, nevertheless, concentrations of GRP78 in serum vary significantly within the population. **The expression of different HSP proteins, including GRP78, is also elevated during inflammation**. Consequently, the HSP proteins are released into the blood stream where they interact with different pro- and anti-inflammatory factors. Accordingly, the level of GRP78 protein and the level of anti-GRP78 antibodies were reported to be reproducibly increased in individuals suffering with **rheumatic arthritis, a model autoimmune disease**. **In those individuals GRP78 and its antibodies can also be detected in both synovial fluid and saliva**.

**Areas of investigation:** Atherosclerosis, Autoimmunity, Cardiovascular disease, Energy metabolism and body weight regulation, Immune Response, Infection and Inflammation, Oncology.

### RELATED PRODUCTS

[RD184230100](#) Glucose-Regulated Protein 78 Human, Sheep Polyclonal Antibody

[RD17223010](#) Glucose-Regulated Protein 78 Human *E. coli*



## NEW IMMUNOASSAYS

CAT. NO.	NAME	IVD/RUO	ASSAY FORMAT
<a href="#">RD191328200R</a>	Human Apoptosis Inhibitor of Macrophage ELISA	ELISA RUO	Sandwich ELISA, Biotin-labelled antibody
<a href="#">RTC009R</a>	Rat Estradiol ELISA	ELISA RUO	Competitive ELISA, Immobilized antigen
<a href="#">RD191230200R</a>	Human Glucose-Regulated Protein 78 ELISA	ELISA RUO	Direct ELISA, Biotin-labelled antibody
<a href="#">RAI007R</a>	Mouse Insulin ELISA, Ultra Sensitive	ELISA RUO	Sandwich ELISA, HRP-labelled antibody
<a href="#">RAI008R</a>	Rat Insulin ELISA, Ultra Sensitive	ELISA RUO	Sandwich ELISA, HRP-labelled antibody
<a href="#">RAI003R</a>	Mouse Insulin ELISA, Wide Range	ELISA RUO	Sandwich ELISA, HRP-labelled antibody
<a href="#">RAI004R</a>	Rat Insulin ELISA, Wide Range	ELISA RUO	Sandwich ELISA, HRP-labelled antibody
<a href="#">RAI005R</a>	Mouse Insulin ELISA, High Sensitivity	ELISA RUO	Sandwich ELISA, HRP-labelled antibody
<a href="#">RAI006R</a>	Rat Insulin ELISA, High Sensitivity	ELISA RUO	Sandwich ELISA, HRP-labelled antibody
<a href="#">RD191254200R</a>	Human Placental Protein 13 ELISA	ELISA RUO	Sandwich ELISA, Biotin-labelled antibody
<a href="#">RAI001R</a>	Human Proteinase 3 (PR3) ELISA	ELISA RUO	Sandwich ELISA, HRP-labelled antibody
<a href="#">RAI002R</a>	Mouse Proteinase 3 (PR3) ELISA	ELISA RUO	Sandwich ELISA, HRP-labelled antibody

## NEW DISTRIBUTION PRODUCTS

In addition to our own products, BioVendor carefully selects high quality products from other companies to meet the needs of our customers. Our company expanded the current portfolio of new ELISA kits which can be found at the links below: [www.biovendor.com/distribution](http://www.biovendor.com/distribution)\* or [www.biovendor.com/distribution](http://www.biovendor.com/distribution)\*\*

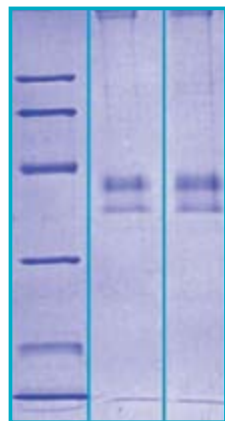
\* for Austria, Czech Republic, Slovak Republic and North America available only \*\* for Europe available only

## RECOMBINANT PROTEINS

### » FEATURED PRODUCT: HUMAN FOLLISTATIN HEK293

Follistatin (FST) is a monomeric glycosylated protein unrelated to inhibin. It is able to specifically bind activin and inhibit FSH release from pituitary cells. FST is encoded by a single gene which gives rise to various alternative splicing, glycosylation and proteolytic cleavage variants. The two main variants of FST are encoded through alternative splicing at the carboxyl-terminus. A 288-residue molecule terminates after the third FST domain, whereas a 315-residue form is extended by an extra exon to include a highly acidic 27-residue "tail." Both are capable of binding activin. FST315 is the major isoform observed in the peripheral circulation. FST is produced and plays a regulatory role in the gonads, ovary, pituitary gland, pregnancy membranes, liver and kidney, and also circulates in blood. FST level increases in the third trimester and disappears postpartum. FST:activin ratio plays a role in inflammation severity, tissue remodelling and fibrosis in lungs, liver, and heart. Activin regulation by FST has a role in bone repair processes.

BioVendor's Follistatin is a recombinant human FST315 protein expressed in HEK293 cell line. The protein has been lyophilized from 0.075 M NaCl/ 0.05 M phosphate buffer and does not contain any inert proteins or antimicrobial agents.



#### 12 % SDS-PAGE separation of Human FST (HEK293):

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

## RELATED PRODUCTS

[RD193168200R](#) Follistatin Human ELISA

[RD172168100](#) Follistatin Human *E. coli*

[RD184168100](#) Follistatin Human, Sheep Polyclonal Antibody

## NEW RECOMBINANT PROTEINS

CAT. NO.		NAME	SIZE	SOURCE
<a href="#">RD172410100</a>	Human	6-phosphogluconate dehydrogenase, decarboxylating	0.1 mg	<i>E. coli</i>
<a href="#">RD172406100</a>	Human	Aminoacylase-1	0.1 mg	<i>E. coli</i>
<a href="#">RD172392100</a>	Human	ATPase Inhibitor Mitochondrial	0.1 mg	<i>E. coli</i>
<a href="#">RD172328100-HEK</a>	Human	CD5 antigen-like	0.1 mg	HEK293
<a href="#">RD172394100-HEK</a>	Human	Collagen triple helix repeat-containing protein 1	0.1 mg	HEK293
<a href="#">RD172394100</a>	Human	Collagen triple helix repeat-containing protein 1	0.1 mg	<i>E. coli</i>
<a href="#">RD172168025-HEK</a>	Human	Follistatin	0.025 mg	HEK293
<a href="#">RD772356100</a>	Human	Helicobacter pylori Neutrophil-activating Protein A	0.1 mg	<i>E. coli</i>
<a href="#">RD272006100</a>	Mouse	Procalcitonin	0.1 mg	<i>E. coli</i>
<a href="#">RD872006100</a>	Rhesus	Procalcitonin	0.1 mg	<i>E. coli</i>
<a href="#">RD172416100</a>	Human	Ubiquitin Carboxyl-Terminal Hydrolase Isozyme L1	0.1 mg	<i>E. coli</i>

## BIOMEDICAL SPECIMEN BANK

Provides various types of biological samples along with **corresponding panels of data including analytical parameters**, anthropometric variables and clinical information **for the diagnostic industry, assay manufacturers and researchers.**

Our expanding portfolio of panels covers both **physiological** and **pathological conditions**. Samples are stored at -150°C, supplied on dry ice as **0.105 ml serum, urine or other body fluid**, assorted in 96 microplate-format boxes.

Below please find examples of panels we provide.

A Assay Development and Validation	C Disease State (Pathological) Panels
<b>A1</b> Serum	<b>C1</b> Energy metabolism/Metabolic Syndrome/Obesity
<b>A2</b> Urine	<b>C2</b> Diabetes
<b>A3</b> Seminal Plasma	<b>C3</b> Cardiovascular Disease
<b>A4</b> Cerebrospinal Fluid	<b>C4</b> Renal Disease
<b>A5</b> Synovial fluid	<b>C5</b> Gastroenterology
<b>A6</b> Saliva	<b>C6</b> Neurology
<b>B Physiological Panels</b>	<b>C7</b> Pulmonary/Respiratory Disease
<b>B1</b> Body Mass Index Panel	<b>C8</b> Hepatology
<b>B2</b> Age Panel	<b>C9</b> Cancer/Oncology
<b>B3</b> Sex Panel	<b>C10</b> Sepsis
<b>B4</b> Supine/Upright Panel	<b>C11</b> Trauma
<b>B5</b> Postprandial Panel	<b>C12</b> Immune Response
<b>B6</b> Starvation Panel	<b>C13</b> Autoimmunity
<b>B7</b> Exercise Panel	<b>C14</b> Infectious Diseases
<b>B8</b> Week of Pregnancy Panel	<b>C15</b> Reproduction
<b>B9</b> Estrus/Menstrual Cycle Panel	<b>C16</b> Osteoporosis
<b>B10</b> Newborn Panel	
<b>B11</b> Assayed Sera Panel	

For more information please go to [www.biomedicalspecimenbank.com](http://www.biomedicalspecimenbank.com) or download our leaflet for **BioMedical Specimen Bank**.

**BioVendor – Laboratorni medicina a.s.**

Phone: +420 549 124 185

Fax: +420 549 211 460

E-mail: [info@biovendor.com](mailto:info@biovendor.com)

[www.biovendor.com](http://www.biovendor.com)

**BioVendor**  
Research  
and Diagnostic Products

