## Dedication to cancer diagnostics?

# **Unce**

Tumor Markers catalog

Medix Biochemica

## Introduction

Tumor markers are a diverse group of proteins and other molecules that are secreted by cells, both normal and cancerous, in response to tumors and related conditions. Most tumor markers are also produced under noncancerous circumstances: however. their expression is upregulated during cancer. Determining the presence and concentration of tumor markers in bodily fluids thus supports early tumor detection and can aid treatment follow-up and efficient choice of therapy. Improved cancer management will become increasingly important in the future, as patients continue to live longer and cancers become more and more prevalent.

Various tumor markers are currently used in clinical practice to monitor treatment success, characterize disease, as well as to support cancer diagnosis and detection. An elevated tumor marker level can also result from benign conditions. On the other hand, cancer can be present in the absence of typical tumor markers. In practice, tumor marker immunoassays are therefore often combined with other tests to ensure reliable results.

For example, immunoassays for human prostate-specific antigen (PSA) are commonly used to evaluate the pathological grade of prostate cancer and to aid early prostate cancer detection. As PSA overexpression is also related to some noncancerous conditions, measurements for both the total PSA concentration and the free form of PSA are often combined to improve cancer-specificity. Another example is carcinoembryonic antigen (CEA). Testing for this marker can be a useful tool in predicting the therapeutic effect, progression, and prognosis of several cancers.

Medix Biochemica has more than three decades of experience in producing premium-quality monoclonal antibodies for tumor marker detection as well extensive experience with purified cancer antigens for use in QC materials. Our company's optimized, industrial-scale production methods, certified batch-to-batch consistency, and expert customer service have made Medix Biochemica one of the most important antibody suppliers for the IVD community.



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Catalog

number

Product		

Concentration mg/mL \* Catalog

number

#### Alpha-fetoprotein (AFP)

is a major plasma protein produced by the fetus. AFP is measured in pregnancy as a screening test for a subset of developmental abnormalities. It is also used as a biomarker to detect a subset of tumors.

MONOCLONAL ANTIBODIES									
AFP	5107	1	100014						
	5108	5	100015						

#### Calcitonin

is a peptide hormone secreted by the	MONOCLON		ES	
thyroid gland. Calcitonin concentrations	Calcitonin	4004	5	100563
are increased in patients with medullary		4005	5	100564
thyroid carcinoma (MTC) and can be		4050	>1	700019
used to diagnose and monitor the		4051	>1	700020
disease.				

#### Cancer Antigen 15-3 (CA15-3)

is identified through the use of two monoclonal antibodies, one specific for the MUC-1 protein core and another specific for a carbohydrate epitope on the MUC-1 protein. CA15-3 is a widely	MONOCLONA CA15-3	AL ANTIBODIES 4404	5	100584
used serum marker for breast cancer monitoring. Antibody 4404 recognizes the MUC-1 core protein of CA15-3.				

#### Cancer Antigen 125 (CA125)

is a peptide epitope on the mucin glycoprotein MUC16. CA125 is the most widely used serum biomarker to monitor epithelial ovarian cancer. It is also used for the differential diagnosis of pelvic masses.

MONOCLONAL ANTIBODIES							
CA125	4601	5	100598				
	4602	5	100628				

#### Cancer Antigen 19-9 (CA19-9)

is a tumor biomarker also called Sialyl Lewis A. Serum level measurements of CA19-9 are widely used in pancreatic cancer patients for monitoring their response to cancer treatments.

MONOCLONAL ANTIBODY								
CA19-9	4701	5	100609					

Concentration

mg/mL \*

#### Carcinoembryonic Antigen (CEA)

NOCLONAL ANTIBODIES		
A 5905	5	100869
5909	5	100428
5910	5	100047
5911	1	100048
5912	1	100049
	5905 5909 5910 5911	5905 5 5909 5 5910 5 5911 1

Product

#### hCG

Chorionic Gonadotropin (hCG) is a	MONOCLONA	AL ANTIBODIES		
glycoprotein hormone produced during	hCG beta	5004	1	100004
pregnancy and commonly utilized for		5006	5	100005
early pregnancy testing. Testing for hCG		5008	5	100006
may also be done when diagnosing or		5011	1	100009
monitoring some tumors.		5014	5	100011
		5016	5	100013
	hCG complex	5009	5	100008
	hCG free beta	5012	5	100368

#### **CYFRA 21-1**

is a fragment of Cytokeratin 19. Serum	MONOCLON	AL ANTIBODI	ES		
CYFRA 21-1 has been used as a tumor	CYFRA 21-1	1602	5	100220	
marker, especially in non-small cell lung		1603	5	100221	
cancer.		1604	5	100222	
		1605	5	100223	

Catalog

number

Product

Concentration

Catalog mg/mL number

TBD UPCOMING

#### Ferritin

binds and stores iron, preventing iron deficiency (anemia) and iron overload (hemochromatosis). The amount of ferritin in the serum is measured in relation to some chronic diseases and anemia.

MONOCLONAL ANTIBODIES							
Ferritin	8803	5	100111				
	8806	5	100112				

TBD

#### Gastrin-17

**MONOCLONAL ANTIBODY** Gastrin is a peptide hormone released by G cells in the stomach, duodenum, Gastrin-17 and the pancreas. Gastrin-17 is one of the biologically active forms of gastrin. Levels of Gastrin-17 in the blood is measured to evaluate recurrent peptic ulcers, gastrinomas, and other serious abdominal symptoms.

#### **GDF-15**

Growth differentiation factor 15 (GDF-15) is a stress responsive cytokine having elevated expression levels during tissue injury and inflammatory states. Increased GDF-15 levels are associated with cardiovascular diseases such as heart failure and atherosclerosis, and also with chronic kidney disease and cancer.

MONOCLO	NAL ANTIBODY		
GDF-15	4901	5	100688
	4902	5	100658
	4903	5	100836
	4904	5	100837
	4905	5	100838

TBD

#### Hemoglobin (Hb)

is the iron-containing oxygentransport metalloprotein in red blood cells. Hemoglobin carries oxygen from the lungs to the rest of the body. Deviation from normal values usually indicates abnormalities, such as anemia.

MONOCL	ONAL ANTIBODI	ES	
Hb	7202	5	100079
	7204	5	100080

Concentration

mg/mL

#### Human Epididymis Protein 4 (HE4)

is also known as WAP four-disulfide core	MONOCLO		S	
domain protein 2, and is a 124 amino	HE4	4501	5	100589
acid long protease inhibitor. Serum HE4		4502	5	100592
is often measured together with CA125		4503	5	100608
to monitor progression of epithelial		4505	5	100593
ovarian cancer after treatment.				

Product

#### Inhibin

Inhibin alpha binds to either beta A or beta B subunit, to form inhibin A, o inhibin B, respectively. Inhibin A test can be used in the diagnostics of Do syndrome. Inhibin B is a marker of m infertility.

Inhibin beta A can form dimers with itself, with inhibin alpha, or inhibin beta B. The dimerization product with inhibin alpha subunit is called inhibin A. Assessment of inhibin A concentration is used in prenatal screening for Down syndrome.

	MONOCLONA	ANTIBODIES		
or ts own nale	Inhibin alpha	9401	5	100711
ו ith	Inhibin beta A	9504	5	100709

Catalog number

Concentration mg/mL \*

Product	Concentration
	mg/mL *

#### Neuron-Specific Enolase (NSE)

has been detected in patients with certain tumors, namely: neuroblastoma, small cell lung cancer, medullary thyroid cancer, carcinoid tumors, pancreatic endocrine tumors, and melanoma.

MONOCLO	NAL ANTIBO	DIES	
NSE	9601	5	100388
	9602	5	100408
RECOMBIN	ANT ANTIGE	N	
NSE antigen		100 µg	610150

Catalog

number

#### Pepsinogen (PG I & II)

is the pro-form of pepsin. It is produced in the stomach and secreted into the gastric lumen, but a small amount is also released into the blood. Alterations in the serum pepsinogen concentration may indicate gastric abnormalities.	MONOCLONA PG I PG II	L ANTIBO 8003 8009 8015 8016 8101 8102 8103	DIES 5 1 5 5 5 1 5	100120 100093 100143 100868 100097 100098 100121
	RECOMBINAN	IT ANTIGE	N	
	PG I antigen PG II antigen		100 μg 100 μg	610000 610001

#### **PIVKA-II**

Protein induced by vitamin K absence or antagonist-II (PIVKA-II), also known as des-γ-carboxy prothrombin (DCP), is an abnormal form of prothrombin. In patients with hepatocellular carcinoma (HCC), γ-carboxylation of prothrombin is impaired leading to formation of PIVKA-II, which can be used to assess the surveillance, diagnosis and management of HCC.

AL ANTIBODI	ES	
12102	5	100871
12103	5	100872
12106	5	100875
	12102 12103	12103 5

#### **Prostate-Specific Antigen (PSA)**

is a protein produced by the cells of the	MONOCLON	AL ANTIBOD	IES	
prostate gland. PSA is often elevated	PSA	8301	5	100102
in the presence of prostate cancer and		8311	1	100103
in other prostate disorders. Free PSA		8312	5	100139
is a form of PSA that does not become attached to other blood proteins. Decreased levels of free PSA may indicate prostate cancer.	Free PSA	8313	5	100488

Product

#### S100B

belongs to the family of dimeric	MONOCLONA		DDY		
calcium-binding S100 proteins. S100B	S100B	11401	5	100778	
is a biomarker for traumatic brain injury.		11402	5	100779	
		11404	5	100781	
	RECOMBINAN	T ANTIGI	EN		
	S100B antigen		50 µg	710014	
			500 µg	710045	
			1000 µg	710044	

#### Squamous Cell Carcinoma (SCC)

Squamous cell carcinoma (SCC)	MONOCL	ONAL ANTIBODY		
antigen is a biomarker of squamous cell	SCC	11801	5	100876
carcinomas found in the lung, uterine		11802	5	100877
cervix, esophagus, head, neck, anal		11803	5	100878
canal, and skin.		11804	5	100879

Product	Source	Purity	Form	Catalog number
Acid Phospha	ntase (ACP)			
ENZYMES				
Prostatic ACP/PAP	Human Semen	High Purity	Lyophilized	475-31
		High Purity	Liquid	475-32
		Purified	Lyophilized	475-30
Non-Prostatic ACP	Sweet Potato	Purified	Liquid	475-20 475-41
NON-Prostatic ACP	Sweet Polato	Purified	Lyophilized Liquid	475-41
			Elquid	1/0/10
Alpha-Fetopro	otein (AFP)			
NATIVE ANTIGENS				
AFP	Human Cord Serum	High Purity	Liquid	105-11
			Lyophilized	105-12
Beta-2 Microg	globulin (B2M)			
NATIVE ANTIGENS				
B2M	Human Urine	High Purity	Liquid	126-12
			Lyophilized	126-11
ECOMBINANT ANT	IGEN			
32M	Recombinant	High Purity	Lyophilized	126-14
POLYCLONAL ANTIE	BODY			
B2M	Goat anti-Human	High Purity	Liquid	GB2-80A
Cancer Antig	en 125 (CA125)			
CA125	Human Ascites Fluid	High Purity	Liquid	151-25
	. Idinary locited Field			101 20
Cancer Antige	en 15-3 (CA15-3)			
NATIVE ANTIGEN				
CA15-3	Human Ascites Fluid	Purified	Liquid	151-53

#### Cancer Antigen 19-9 (CA19-9)

NATIVE ANTIGEN			
CA19-9	Human Liver Metastases Purif	ied Liquid	151-99

Product	Source	Purity	Form	Catalog number
Cancer Anti	igen 242 (CA242)			
ANTIGEN CA242	Human Cell Culture	Purified	Liquid	151-42
Cancer Anti	igen 50 (CA50)			
ANTIGEN CA50	Human Cell Culture	Purified	Liquid	151-50
Cancer Anti	igen 72-4 (CA72-4)			
<b>NATIVE ANTIGEN</b> CA72-4	Human Liver Metastatic Carcinoma	High Purity	Liquid	151-24
Carcinoemt	oryonic Antigen (CEA	A)		
NATIVE ANTIGEN CEA	Human Liver Metastatic Carcinoma	High Purity	Liquid Lyophilized	151-10 151-09
POLYCLONAL AN CEA	TIBODY Goat anti-Human	High Purity	Liquid	151-12
Chorionic G	onadotropin (HCG)			
NATIVE ANTIGEN	s			
hCG	Human Pregnancy Urine	High Purity Purified	Lyophilized Lyophilized	189-11 189-10
beta-hCG	Human Pregnancy Urine	High Purity	Lyophilized	325-11
CYFRA 21-1				
ANTIGEN CYFRA 21-1	Human Cell Culture	High Purity	Liquid	192-20
Epididymis	Protein 4 (HE4)			
ANTIGEN				
HE4	Recombinant	Purified	Liquid	345-50

Catalog number

Product	Source	Purity	lurity Form	
Ferritin				
NATIVE ANTIGENS				
Ferritin	Human Liver	High Purity	Liquid	270-40
	Human Spleen	High Purity	Liquid	270-50
	Human Placenta	High Purity	Liquid	270-60
POLYCLONAL ANTIB	ODY			
Ferritin	Rabbit anti-Human	High Purity	Liquid	RF-80A
Fibrinogen				
NATIVE ANTIGEN				
Fibrinogen	Human Plasma	High Purity	Lyophilized	271-17
Hemoglobin				
NATIVE ANTIGEN				
Hb	Human Erythrocytes	High Purity	Lyophilized	338-10
Neuron Speci	fic Enolase (NSE)			
NATIVE ANTIGEN				
NSE	Human Brain	High Purity	Liquid	430-11
Pepsinogen				
NATIVE ANTIGENS				
PGI	Human Gastric Mucosa	High Purity	Lyophilized	440-50
PGII	Human Gastric Mucosa	High Purity	Lyophilized	440-52
Placental Alka	line Phosphatase	(PLAP)		
ENZYME				
PLAP	Human Placenta	Purified	Lyophilized	485-10
Prostate Spec	ific Antigen (PSA)	)		
NATIVE ANTIGENS PSA	Human Semen	Llich Durity	Liquid	107 11
РЭА	Human Semen	High Purity	Liquid Lyophilized	497-11 497-22
			Lyopinized	437-22

NATIVE ANTIGEN PSA-ACT Complex	Human Semen & Ser	rum High Purity	Liquid	498-11
Thyroglobulin	(Tg)			
NATIVE ANTIGEN				
Tg	Human Thyroid Glan	d High Purity	Lyophilized	528-11
Product	Source A	pplications	Matched pairs	Catalog num

Purity

Form

#### Gastrin 17 (G-17)

Product

Source

MONOCLONAL ANTIBODY			
Gastrin 17 (G-17) Antibody Mouse	ELISA, Lateral Flow, CLIA, IFA	HM775 or HM776 (detection)	HM774

#### Hemoglobin (Hb)

MONOCLONAL ANTIBODY					
Hemoglobin (Hb) Antibody	Mouse	Lateral Flow	HM060, HM754 or HM753 (capture)	HM061	
Hemoglobin (Hb) Antibody	Mouse	ELISA, Lateral Flow	HM257 (detection)	HM258	

#### Pepsinogen II (PGII)

MONOCLONAL ANTIBODY					
Pepsinogen II (PGII) Antibody	Mouse	ELISA, Lateral Flow	HM323 (capture)	HM324	

# **Medix Biochemica Group**

Medix Biochemica is a global, market-leading supplier of critical raw materials to the *in vitro* diagnostics (IVD) industry. Our mission is to enable IVD customers to deliver accurate results to billions of patients worldwide. By working in partnership with Medix Biochemica, IVD manufacturers can reduce their time to market through our industry-leading expertise which increases efficiencies and builds quality into their tests. We achieve this through our deep scientific know-how combined with the broadest and most relevant raw material portfolio and our relentless focus on quality.

Medix Biochemica Group employs more than 260 professionals worldwide. With headquarters in Finland, we serve our worldwide customers through our local teams in the US, Europe, and Asia. www.medixbiochemica.com



#### The first-choice partner

- Focusing on IVD manufacturers' needs
- Capability to support customers across the globe
- Focus on new product development based on customer needs
- Efficient and scalable manufacturing capabilities



#### Widest portfolio

- Monoclonal antibodies
- Antigens for immunoassay materials
- Molecular diagnostics reagents
- Enzymes for clinical chemistry controls
- Biochemicals and biologicals



#### **Highest quality**

- ISO 13485 & FDA QSR compliance
- Batch to batch consistency
- Scalable production capability from milligrams to kilograms

## **Close to our global customers**

We serve our global customers from our sites in Finland, the USA, France, Germany and China.



## **Our values**



#### We care

We put the customer first; we care for the people and the world around us.



#### We dare

We are ambitious and innovative; we take risks and dare to win with our customers.

#### We deliver

We commit to our customers and keep our promises.

#### Get in touch

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### Medix Biochemica

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