

Werfen is a global, family-owned, diagnostics company focused in providing innovative specialized diagnostic solutions to improve patient healthcare, founded in 1966 in Barcelona, Spain.

Our Immunoassay Technology Center has consolidated experience in research, development and manufacturing of customized assays and biomaterials.

We offer end-to-end solutions for the IVD industry with the most innovative capabilities to enhance competitiveness and time-to-market.

Our mission is to become your partner of choice as a center of excellence in providing innovative end-to-end solutions (products & services) to IVD companies.



#### **Innovation**

Our Immunoassay Technology
Center ranks among the top centers
of excellence for immunoassay
and biomaterial development and
manufacturing in the industry. Our
focus on technological advances
ensures our customers access to stateof-the-art R&D and manufacturing
capabilities. Werfen's innovative nature is
strengthened through close relationships
with prestigious universities and
biotechnology research centers around
the world.

#### **Operational Excellence**

Our key strength is the combination of the ongoing effort to improve our organizational processes, products and services with the Werfen mindset that embraces principles and tools to create a sustainable partnership with our customers and employees.

Our Quality System is certified to ISO 13485:2016 / EN ISO 13485:2016 as well as MDSAP.

#### Commitment

Customers and patients benefit from the efficiency of a talented global team of qualified and specialized professionals who lend their enthusiasm, dedication and energy on a daily basis in order to provide high quality products & services.









#### **Acronym List**

A <sub>280</sub>	Absorbance at 280 nm
Ab	Antibody
Ag	Antigen
aHBs	Anti-Hepatitis B Surface
ASO	Anti-Streptolysin O
CHO	Chinese Hamster Ovary
CL	Chemiluminescence
ELISA	Enzyme-Linked ImmunoSorbent Assay
GMP	Good Manufacturing Practices
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HEPES	N-2-hydroxyethylpiperazine-N- 2-ethane sulfonic acid

HEV	Hepatitis E Virus
HPLC	High Performance Liquid Chromatography
HTLV	Human T-lymphotropic Virus
IBES	Improved Baculovirus Expression System
IVD	In Vitro Diagnostics
mAb	Monoclonal Antibody
MES	2-(N-morpholino)ethanesulfonic acid
NTE	NaCl-Tris-EDTA buffer
pAb	Polyclonal Antibody
PBS	Phosphate-Buffered Saline
PIGF	Placental Growth Factor
Rec	Recombinant
sFlt-1	Soluble "FMS" like tyrosine kinase

# Biomaterials for the IVD Industry

Werfen offers a broad range of biomaterials, including antigens, antibodies, obtained by following validated standards of quality procedures. Those procedures ensure the traceability, reproducibility and robustness of every single product. Our expertise is attested to by more than 200 biomaterials that are being used in diagnostic technologies.

Our know-how in biomaterials is focused on their application in commercial diagnostic assays that provides a low-risk, reliable and highly successful option for our customers to reduce time to market in their developments and secure their operations.

Biomaterials
Manufacturing Capabilities

**Purification Technologies** Protein extraction by salt **Expression Systems** precipitation Mammalian cell lines Density gradient ultracentrifugation Insect cell lines Tangential flow filtration IBES®\* / CrisBio™ Preparatory Chromatography Yeast **Analytical Characterization\* Bacterial** Quantification Puritu Hybridoma MW Determination & pl \*IBES\* (Improved Baculo-Primary structure virus Expression System). IBES® and CrisBio™ Tech-Aggregation nologies licensed bu ALGENEX S.L. Thermal stability Glycosilation **Charged variants** Affinity constant Interaction kinetics Thanks to our partnering culture we have a High order structures

vast experience of meeting our customers needs and their regulatory requirements in order to commercialize their products worldwide.

\*This table compiles all the available analytical characterization methodologies. Depending on the biomaterial, there are methodologies applied on routine or upon request



Werfen is your partner with state-of-theart manufacturing capabilities to have the supply of critical biomaterials that cover market needs in a continuous, reliable and low-risk manner securing your operations.

#### **CAPABILITIES**

- 38,000 m² (409,028 ft²) facilities of which 10,000 m² (107,639 ft²) are dedicated to production activities
- Extensive manufacturing scale-up capabilities
- Biosafety level 2 laboratories
- Positive and negative pressurized laboratories
- State-of-the-art equipment: Bioreactors, AKTA Systems among others
- ISO 8 classified areas for production and filling
- Production under GMP's procedures
- Production under Lean Manufacturing
- 5S methodology implemented in all the production areas
- Final QC functional and physicochemical analysis

# Biomaterials Applications\*

Fertility			Chemiluminescence	ELISA	Turbidimetry	Rapid Test
	Monoclonal Antibodies	p. 10				
	Anti-Placental Growth Factor mAb (PGF16M)		•			
	Anti-Placental Growth Factor mAb (PGF03m)		•			
	Anti-sFtl-1 mAb (SFT10m)		•			
	Anti-sFtl-1 mAb (SFT18m)		•			
	Anti-17-0H Progesterone mAb (1)		•			
	Anti-17-0H Progesterone mAb (2)		•			
	Anti-IGFBP-1 rAb (1)	-				
	Anti-IGFBP-1 rAb (2)					
	AMH Antibody-Like protein	<u> </u>	•			
Endocrinology						
	Monoclonal Antibodies	p. 14				
	Anti-Cortisol mAb (3)		•			
	Anti-Cortisol mAb (4)	<u> </u>	•			
	Anti-human Growth Factor mAb (7)	<u> </u>	•			
	Anti-human Growth FActor mAb (5)		•			
	Anti-Prolactin mAb (1)		•			
	Anti-Prolactin mAb (2)		•			
	Anti-IGFBP-3 mAb (BP371m)		•			
	Anti-IGFBP-3 mAb (BP324m)		•			
Hypertension						
	Monoclonal Antibodies	p. 16				
	Anti-Renin mAb (REN24m)		•			
	Anti-Renin mAb (REN20m)		•			
Bone Metabolism						
	Monoclonal Antibodies	p. 17				
	Anti-Osteocalcin mAb (OST18m)		•			
	Anti-Osteocalcin mAb (OST24m)		•			

<sup>\*</sup>Please note that this table is merely indicative. Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

Cardiac			Chemiluminescence	ELISA	Turbidimetry	Rapid Tes
	Recombinant Antibodies	p. 18				
	Anti-Troponin I rAb (1)			•		
	Anti-Troponin I rAb (2)					
	Anti-GDF-15 rAb (1)					
	Anti-GDF-15 rAb (2)					
nflammation						
	IL-6	p. 20				
	Recombinant Antibodies					
	Anti-IL-6 rAb (1)	_		•		
	Anti-IL-6 rAb (2)			•		
	ASO	p. 21				
	Recombinant Antigens					
	Recombinant Streptolysin O				•	•
	Recombinant Streptolysin O Stabilized				•	•
Neurology						
	Recombinant Antibodies	p. 22				
	Anti-BDNF rAb (1)					
	Anti-BDNF rAb (2)					
Hepatitis B						
	Native Antigens	p. 24				
	Hepatitis B Surface Antigen (ad Subtype)		•	•		
	Hepatitis B Surface Antigen (ay Subtype)		•	•		
	Recombinant Antigens	p. 24				
	Recombinant HBc Antigen		•	•		
	Polyclonal Antibodies	p. 25				
	Anti-HBs Goat IgG pAb		•	•		
	Anti-HBs Guinea Pig IgG pAb		•	•		
	Monoclonal Antibodies	p. 26				
	Anti-HBs mAb (1DE2)					
lepatitis C						
	Recombinant Antigens	p. 28				
	Recombinant HCV Capsid Polypeptide		•	•		
	Recombinant HCV NS3 Polypeptide			•		
Hepatitis E			<del>.</del>			
	Recombinant Antigen	p. 29				
	Recombinant Hepatitis E Antigen	·	•			

<sup>\*</sup>Please note that this table is merely indicative. Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

Syphilis			Chemiluminescence	ELISA	Turbidimetry	Rapid Test
	Recombinant Antigens	p. 30				
	Recombinant p15 (II) Treponema pallidum Ag		•	•		
	Recombinant p17 Treponema pallidum Ag		•	•		
	Recombinant p47 Treponema pallidum Ag		•	•		
	Recombinant H-p17 Treponema pallidum Ag		•	•		
	Recombinant H-p47 Treponema pallidum Ag		•	•		
Toxoplasma gon	dii					
	Recombinant Antigen	p. 34				
	Recombinant Toxoplasma Antigen		•			
Rubella						
	Native Antigens	p. 35				
	Rubella Antigen Grade A		•	•	•	
	Rubella Antigen Grade B					•
Cytomegalovirus	3					
	Native Antigens	p. 36				
	Cytomegalovirus Antigen		•	•		
Herpes						
	Recombinant Antigens	p. 38				
	Recombinant gG1 Protein HSV-1		•	•		
	Recombinant gG2 Protein HSV-2		•	•		
Chagas						
	Recombinant Antigens	p. 39				
	Recombinant TcF Antigen		•			
HTLV						
	Recombinant Antigen	p. 40				
	Recombinant HTLV I/II Antigen		•			
Adenovirus						
	Monoclonal Antibodies	p. 42				
	Anti-Adenovirus mAb (2/6)			•		•
	Anti-Adenovirus mAb (20/11)			•		•
Secondary Antiboo	dies					
	Monoclonal Antibodies	p. 43				
	Anti-Human IgG mAb		•			
	Anti-Human IgM mAb		•			

<sup>\*</sup>Please note that this table is merely indicative. Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.



# **Fertility**

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Fertility		Chemiluminescence	ELISA	Turbidimetry	Rapid Test
	Monoclonal Antibodies				
	Anti-Placental Growth Factor mAb (PGF16M)	•			
	Anti-Placental Growth Factor mAb (PGF03m)	•			
	Anti-sFlt-1 mAb (SFT10m)	•			
	Anti-sFlt-1 mAb (SFT18)	•			
	Anti-17-0H Progesterone mAb (1)	•			
	Anti-17-0H Progesterone mAb (2)	•			
	Anti-IGFBP-1 rAb (1)				
	Anti-IGFBP-1rAb (2)				
	AMH Antibody-Like protein	•			

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### **Monoclonal Antibodies**

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Product Description	Presentation	Reference	Storage
Anti-Placental Growth Factor mAb (PGF16M)	1mg/vial	3000-5330	-70°C*
Anti-Placental Growth Factor mAb (PGF03m)	mg/custom size	3000-5329	-70°C*

The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

Source Hybridoma cell line

**Storage Buffer** 50 mM MES, 150 mM NaCl, pH 6

Purification Method Protein A

Protein Concentration $\geq$  1.00 mg /mL (A280)PreservativeNo Preservative Added

Product Description	Presentation	Reference	Storage
Anti-Placental Growth Factor mAb (PGF03m)	1 mg/vial	3000-5332	-70°C*
Anti-Placental Growth Factor mAb (PGF03m)	mg/custom size	3000-5331	-70°C*

The information contained in this catalogue is for informational purposes. Contact Immunoassay(Owerfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

Source Hybridoma cell line

50 mM MES, 150 mM, NaCl, pH 6 Storage Buffer

**Purification Method** Protein A 1 mg /mL (A<sub>280</sub>) No Preservative Added **Protein Concentration** 

Preservative

Product Description	Presentation	Reference	Storage
Anti-sFtl-1 mAb (SFT10m)	1 mg/vial	3000-5334	-70°C*
Anti-sFlt-1 mAb (SFT10m)	mg/custom size	3000-5333	-70°C*

The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

Source Hybridoma cell line

Storage Buffer 50 mM MES, 150 mM, NaCl, pH 6

**Purification Method** Protein A

 $\geq$  1.00 mg /mL (A<sub>280</sub>) **Protein Concentration** No Preservative Added Preservative

Product Description	Presentation	Reference	Storage
Anti-sFlt-1 mAb (SFT18)	1 mg/vial	3000-5336	-70°C*
Anti-sFlt-1 mAb (SFT18)	mg/custom size	3000-5335	-70°C*

The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

Hybridoma cell line Source

PBS, pH 7.4 Storage Buffer **Purification Method** Protein G 1 mg /mL (A<sub>280</sub>) No Preservative Added **Protein Concentration** Preservative

Product Description	Presentation	Reference	Storage
Anti-17-OH Progesterone mAb (1)	mg/custom size	3421-0013	-70°C*
Anti-17-OH Progesterone mAb (2)	mg/custom size	3421-0010	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

Source Hybridoma cell line

Storage Buffer PBS, pH 7.4 **Purification Method** Protein G **Protein Concentration** 

1 mg /mL (A<sub>280</sub>) No Preservative Added Preservative

Product Description	Presentation	Reference	Storage
Anti-17-OH Progesterone mAb (1)	mg/custom size	3421-0013	-70°C*
Anti-17-0H Progesterone mAb (2)	mg/custom size	3421-0010	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@ werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

Hybridoma cell line Source

Storage Buffer PBS, pH 7.4 Protein G **Purification Method** 1 mg /mL (A<sub>280</sub>) No Preservative Added **Protein Concentration** 

Preservative

Product Description	Presentation	Reference	Storage
Anti-IGFBP-1 rAb (1)	1 mg/vial	3421-0016	-70°C*
Anti-IGFBP-1 rAb (2)	1 mg/vial	3421-0017	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

Source CHO-Based cell line

Storage Buffer PBS, pH 7.4

Purification Method Method: Protein A Affinity Chromatography

**Protein Concentration** 0.8 - 1,2 mg/mL

Product Description	Presentation	Reference	Storage
AMH Antibody-Like protein	mg/custom size	3000-7075	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

SourceEscherichia coliStorage BufferCitrate, NaCl, pH 6.5Purification MethodAffinity chromatography

**Protein Concentration** 1mg/mL **Preservative** 0,2% Azide

# Endocrinology

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Endocrinology	Chemiluminescence	ELISA	Turbidimetry	Rapid Test
Monoclonal Antibodies				
Anti-Cortisol mAb (3)	•			
Anti-Cortisol mAb (4)	•			
Anti-hGH mAb (7)	•			
Anti-hGH mAb (5)	•			
Anti-Prolactin mAb (1)	•			
Anti-Prolactin mAb (2)	•			
Anti-IGFBP-3 mAb (BP371m)	•			
Anti-IGFBP-3 mAb (BP324m)	•			

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Monoclonal Antibodies

Product Description	Presentation	Reference	Storage
Anti-Cortisol mAb (3)	mg/custom size	3421-0008	-70°C*
Anti-Cortisol mAb (4)	mg/custom size	3421-0011	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

Source Hybridoma cell line

 $\begin{array}{lll} \textbf{Storage Buffer} & \textbf{PBS}, \, \text{pH 7.4} \\ \textbf{Purification Method} & \textbf{Protein G} \\ \textbf{Protein Concentration} & 1 \, \text{mg /mL (A}_{280}) \\ \end{array}$ 

Product Description	Presentation	Reference	Storage
Anti-hGH mAb (7)	mg/custom size	3000-5316	-70°C*
Anti-hGH mAb (5)	mg/custom size	3000-5319	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

**Source** Hybridoma cell line

Storage Buffer PBS, pH 7.4
Purification Method Protein Concentration 1 mg /mL (A<sub>280</sub>)

Preservative No Preservative Added

Product Description	Presentation	Reference	Storage
Anti-Prolactin mAb (1)	mg/custom size	3421-0000	-70°C*
Anti-Prolactin mAb (2)	mg/custom size	3421-0001	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@ werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

Source Hybridoma cell line

**Storage Buffer** PBS, pH 7.4 **Purification Method** Protein G

Protein Concentration 0.50 mg/mL (A<sub>280</sub>)
Preservative No Preservative Added

Product Description	Presentation	Reference	Storage
Anti-IGFBP-3 mAb (BP371m)	1 mg/vial	3000-7076	-70°C*
Anti-IGFBP-3 mAb (BP324m)	1 mg/vial	3000-7077	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@ werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

SourceMouse HybridomaStorage BufferMES, NaCL, pH 6.0

Purification Method Protein A Affinity Chromatography

**Protein Concentration** 1 - 3 mg/mL

# Hypertension

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Hypertension	(	Chemiluminescence	ELISA	Turbidimetry	Rapid Test
Monoclonal Antibodies					
Anti-Renin mAb (REN24m)		•			
Anti-Renin mAb (REN24m)		•			

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Monoclonal Antibodies

Product Description	Presentation	Reference	Storage
Anti-Renin mAb (REN24m)	1 mg/vial	3000-7070	-70°C*
Anti-Renin mAb (REN20m)	1 mg/vial	3000-7071	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

SourceHybridoma cell lineStorage BufferMES, NaCL, pH 6.0

Purification Method Protein A affinity chromatography

**Protein Concentration** 0.8 - 2 mg/mL

### Bone Metabolism

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Bone Metabolism	Chemiluminescence	ELISA	Turbidimetry	Rapid Test
Monoclonal Antibodies				
Anti-Osteocalcin mAb (OST18m)	•			
Anti-Osteocalcin mAb (OST24m)	 •			

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Monoclonal Antibodies

Product Description	Presentation	Reference	Storage
Anti-Osteocalcin mAb (OST18m)	mg/custom size	3000-7072	-70°C*
Anti-Osteocalcin mAb (OST24m)	mg/custom size	3000-7072	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

Source Hybridoma cell line

Storage Buffer MES, pH 6

**Purification Method** Protein A affinity chromatography

**Protein Concentration** 0.8-1mg/mL

# Cardiac

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Cardiac	
	Recombinant Antibodies
	Anti-Troponin I rAb (1)
	Anti-Troponin I rAb (2)
	Anti-GDF-15 rAb (1)
	Anti-GDF-15 rAb (2)

Chemiluminescence	ELISA	Turbidimetry	Rapid Test
•			
•			
•			
•			

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.



### Recombinant Antibodies

Product Description	Presentation	Reference	Storage
Anti-Troponin I rAb (1)	mg/custom size	3421-0004	2-8°C
Anti-Troponin I rAb (2)	mg/custom size	3421-0005	2-8°C

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability.

#### **Details**

**Source** CHO-based cell line

Storage BufferPBS, pH 7.4Purification MethodProtein AProtein Concentration1mg/mL

**Preservative** No Preservative Added

Product Description	Presentation	Reference	Storage
Anti-GDF-15 rAb (1)	mg/custom size	3421-0002	2-8°C
Anti-GDF-15 rAb (2)	mg/custom size	3421-0003	2-8°C

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability.

#### **Details**

**Source** CHO-based cell line

Storage BufferPBS, pH 7.4Purification MethodProtein AProtein Concentration1mg/mL

### Inflammation

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Inflammation		
	IL-6	
	Recombinant Antibodies	
	Anti-IL-6 rAb (1)	
	Anti-IL-6 rAb (2)	
	ASO	
	Recombinant Antigens	
	Recombinant Streptolysin O	
	Recombinant Streptolysin O Stabilized	

ELISA	Turbidimetry	Rapid Test
•		
•		
	•	•
	•	•
	• •	ELISA Turbidimetry  • • • • • • • • • • • • • • • • • •

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### IL-6

### Recombinant Antibodies

Product Description	Presentation	Reference	Storage
Anti-IL-6 rAb (1)	mg/custom size	3421-0006	2-8°C
Anti-IL-6 rAb (2)	mg/custom size	3421-0007	2-8°C

These producs are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability.

#### **Details**

Source CHO-based cell line

Storage BufferPBS, pH 7.4Purification MethodProtein AProtein Concentration1mg/mL

## **ASO**

# Recombinant Antigens

Product Description	Presentation	Reference	Storage
Recombinant Streptolysin O	mg/custom size*	3000-5258	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

**Source** Escerichia coli **Storage Buffer** Tris-HCl, pH 8.5

Purification Method Metal Affinity Chromatography

Protein Concentration 2-4 mg/mL (A<sub>280</sub> x 0.79)
Preservative No Preservative Added

Product Description	Presentation	Reference	Storage
Recombinant Streptolysin O stabilized	1mg/mL	3000-5311	-70°C**
Recombinant Streptolysin O stabilized	mg/custom size*	3000-5259	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Source Escerichia coli Storage Buffer Tris-HCl, pH 8.2

Purification Method Metal Affinity Chromatography
Protein Concentration 1-2 mg/mL (Lowry Method)
Preservative No Preservative Added

# Neurology

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories..

Neurology	Chemiluminesc	ence ELISA	Turbidimetry	Rapid Test
Recombinan Antibodies				
Anti-BDNF rAb (1)				
Anti-BDNF rAb (2)				

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Recombinant Antibodies

Product Description	Presentation	Reference	Storage
Anti-BDNF rAb (1)	1 mg/vial	3421-0014	-70°C
Anti-BDNF rAb (2)	1 mg/vial	3421-0015	-70°C

These producs are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability.

#### **Details**

**Source** CHO-based cell line

Storage BufferPBS, pH 7.5Purification MethodProtein AProtein Concentration0.8 - 1.2 mg/mLPreservativeNo Preservative Added



# Infectious Diseases Hepatitis B

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Hepatitis B		Chemiluminescer	nce ELISA	Turbidimetry	Rapid Test
	Native Antigens				
	Hepatitis B Surface Antigen (ad Subtype)	•	•		
	Hepatitis B Surface Antigen (ay Subtype)	•	•		
	Recombinant Antigens				
	Recombinant HBc Antigen	•	•		
	Polyclonal Antibodies				
	Anti-HBs Goat IgG pAb	•	•		
	Anti-HBs Guinea Pig IgG pAb	•	•		
	Monoclonal Antibodies				
	Anti-HBs mAb (1DE2)				

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Native Antigens

Product Description	Presentation	Reference	Storage
Hepatitis B Surface Antigen (ad Subtype)	1 mg/vial	3000-5201	-20°C**
Hepatitis B Surface Antigen (ad Subtype)	mg/custom size*	3000-5200	-20°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Source Human plasma
Storage Buffer PBS, pH 7.4
Purification Method Ultracentrifugation
Protein Concentration 2-3 mg/mL (A<sub>280</sub> / 3.726)
Preservative No Preservative Added

Product Description	Presentation	Reference	Storage
Hepatitis B Surface Antigen (ay Subtype)	1 mg/vial	3000-5199	-20°C**
Hepatitis B Surface Antigen (ay Subtype)	mg/custom size*	3000-5198	-20°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Source Human plasma
Storage Buffer PBS, pH 7.4
Purification Method Ultracentrifugation
Protein Concentration 2-3 mg/mL (A<sub>280</sub> / 3.726)
Preservative No Preservative Added

### Recombinant Antigens

Product Description	Presentation	Reference	Storage
Recombinant HBc Antigen	1 mg/vial	3000-5100	-20°C**
Recombinant HBc Antigen	mg/custom size*	3000-5102	-20°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

SourceEscherichia coliStorage BufferPBS, pH 7.4Purification MethodUltracentrifugation

**Protein Concentration** 0.2-1.0 mg/mL (Lowry Method)

### Polyclonal Antibodies

Product Description	Presentation	Reference	Storage
Anti-HBs Goat IgG pAb	5 mg/vial	3000-5501	2-8°C
Anti-HBs Goat IgG pAb	mg/custom size*	3000-5502	2-8°C

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 10 mg/vial.

#### **Specifications**

SourceGoat SerumStorage BufferCarbonate, pH 9.5

Purification Method Immunoaffinity Chromatography

Protein Concentration 1-3 mg/mL (A<sub>280</sub> / 0.71) Preservative No Preservative Added

Product Description	Presentation	Reference	Storage
Anti-HBs Guinea Pig IgG pAb	5 mg/vial	3000-5264	2-8°C
Anti-HBs Guinea Pig IgG pAb	mg/custom size*	3000-5265	2-8°C

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 10 mg/vial.

#### **Details**

**Source** Guinea Pig Serum

Storage Buffer PBS

 $\begin{array}{ll} \textbf{Purification Method} & Immunoaffinity Chromatography \\ \textbf{Protein Concentration} & 0.5-2.0 \ \text{mg/mL} \left( \text{A}_{280} \ / \ 0.78 \right) \\ \textbf{Preservative} & < 0.1\% \ \text{Sodium Azide} \\ \end{array}$ 

### Monoclonal Antibodies

Product Description	Presentation	Reference	Storage
Anti-HBs mAb (1DE2)	50 mg/custom size*	3000-5012	-70°C**
Anti-HBs mAb (1DE2)	1mg/vial	3000-5011	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum order 50 mg and minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

IsotypeMouse IgG1 KappaSourceHybridoma Cell LineStorage BufferCitrate, 0.1 M, pH 7.5Purification MethodAffinity ChromatographyProtein Concentration2-6 mg/mL (A280 / 0.71)PreservativeNo Preservative Added



# Hepatitis C

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Hepatitis C		Chemiluminescence	ELISA	Turbidimetry	Rapid Test
Recombinant Antigens	_				
Recombinant HCV Capsid Polypeptide		•	•		
Recombinant HCV NS3 Polypeptide		•	•		

Other uses may be applicable depending on customer use. For further technical information or requests please contact Immunoassay@werfen.com.

### Recombinant Antigens

Product Description	Presentation	Reference	Storage
Recombinant HCV Capsid Polypeptide	mg/custom size*	3000-5103	-70°C**
Recombinant HCV Capsid Polypeptide	1mg/vial	3000-5314	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Source Escherichia coli Storage Buffer Acetate, NaCl, pH 5.5

Purification Method Ion Exchange Chromatography

**Protein Concentration** 0.5-2.0 mg/mL (A<sub>280</sub>) **Preservative** No Preservative Added

Product Description	Presentation	Reference	Storage
Recombinant HCV NS3 Polypeptide	mg/custom size*	3000-5104	-70°C**
Recombinant HCV NS3 Polypeptide	1mg/vial	3000-5105	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Source Escherichia coli

Storage Buffer Tris-HCI, NaCl, pH 8.6

Purification Method Affinity Chromatography

Protein Concentration Preservative No Preservative Added

# Hepatitis E

The following products have been reported to work in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Hepatitis E		Chemilumin	escence	ELISA	Turbidimetry	Rapid Test
	Recombinant Antigens					
	Recombinant HEV Ag	•				

Other uses may be applicable depending on customer use. For further technical information or requests please contact Immunoassau@werfen.com.

### Recombinant Antigens

Product Description	Presentation	Reference	Storage
Recombinant HEV Ag	mg/custom size*	3000-5326	-70°C**
Recombinant HEV Ag	1 mg/vial	3000-5323	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Source Escherichia coli

Storage Buffer MES, NaCl, pH 6.4

Purification Method Affinity Chromatography

Protein Concentration

Preservative No Preservative Added

# **Syphilis**

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Syphilis		Chemiluminescence	ELISA	Turbidimetry	Rapid Test
	Recombinant Antigens				
	Recombinant p15 (II) Treponema pallidum Ag	•	•		
	Recombinant p17 Treponema pallidum Ag	•	•		
	Recombinant p47 Treponema pallidum Ag	•	•		
	Recombinant H-p17 Treponema pallidum Ag	•	•		
	Recombinant H-p47 Treponema pallidum Ag	•	•		

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Recombinant Antigens

Product Description	Presentation	Reference	Storage
Recombinant p15 (II) Treponema pallidum Ag	mg/custom size*	3000-5289	-70°C**
Recombinant p15 (II) Treponema pallidum Ag	1mg/vial	3000-5306	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Tag GST

Source Escherichia coli

Storage Buffer Tris-HCl, NaCl, pH 8.0

Purification Method Affinity Chromatography
Protein Concentration 3-7 mg/mL (A<sub>280</sub> x 0.74)

Preservative No Preservative Added

Product Description	Presentation	Reference	Storage
Recombinant p17 Treponema pallidum Ag	mg/custom size*	3000-5280	-70°C**
Recombinant p17 Treponema pallidum Ag	1mg/vial	3000-5305	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 2 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

**Tag** GST

Source Escherichia coli

Storage Buffer Tris-HCI, NaCl, pH 8.0

Purification Method Affinity Chromatography

Protein Concentration 8-12 mg/mL (A<sub>280</sub> x 0.78)

Preservative No Preservative Added

Product Description	Presentation	Reference	Storage
Recombinant p47 Treponema pallidum Ag	mg/custom size*	3000-5284	-70°C**
Recombinant p47 <i>Treponema pallidum</i> Ag	1mg/vial	3000-5307	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

**Tag** GST

Product Description	Presentation	Reference	Storage
Recombinant H-p17 Treponema pallidum Ag	mg/custom size*	3000-5254	-70°C**
Recombinant H-p17 Treponema pallidum Ag	1mg/vial	3000-5308	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Tag HIS

Source Escherichia coli
Storage Buffer Tris-HCl, NaCl, pH 8.0

Purification Method Metal Affinity Chromatography

Protein Concentration 2-5 mg/mL (A<sub>280</sub> x 1.38)
Preservative No Preservative Added

Product Description	Presentation	Reference	Storage
Recombinant H-p47 Treponema pallidum Ag	mg/custom size*	3000-5263	-70°C**
Recombinant H-p47 <i>Treponema pallidum</i> Ag	1mg/vial	3000-5309	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Tag HIS

Source Escherichia coli Storage Buffer Tris-HCl, NaCl, pH 8.0

Purification Method Metal Affinity Chromatography

Protein Concentration 2-5 mg/mL (A<sub>280</sub> x 0.91) Preservative No Preservative Added



# Toxoplasma

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Toxoplasma	Chemiluminescence	ELISA	Turbidimetry	Rapid Test
Recombinant Antigen				
Recombinant Toxoplasma Antigen	•			

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Recombinant Toxoplasma Antigen

Product Description	Presentation	Reference	Storage
Recombinant Toxoplasma Antigen	mg/custom size	3000-7074	-70°C*

This product is in R&D Stage and is for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@ werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

**Source** Escherichia coli

**Storage Buffer** Sodium Bicarbonate, Sodium Carbonate pH 9.6

**Purification Method** Affinity chromatography

**Protein Concentration** 1 mg /mL

### Rubella Virus

The following products have been reported to work in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Rubella		Chemiluminescence	ELISA	Turbidimetry	Rapid Test
	Native Antigens				
	Rubella Antigen Grade A	•	•	•	
	Rubella Antigen Grade B				•

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Native Antigens

Product Description	Presentation	Storage	
Rubella Antigen Grade A	1 mg/vial 3000-5202		-70°C**
Rubella Antigen Grade A	mg/custom size*	3000-5204	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

**Source** Tissue Culture (Virus Strain HPV-77)

**Storage Buffer** Sucrose/SDS/NTE **Purification Method** Ultracentrifugation

**Protein Concentration** 0.5-1.5 mg/mL (Modified Warburg-Christian Method)

**Preservative** No Preservative Added

Product Description	Presentation Reference		Storage	
Rubella Antigen Grade B	1 mg/vial	3000-5203	-70°C**	
Rubella Antigen Grade B	mg/custom size*	3000-5205	-70°C**	

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Source Tissue Culture (Virus Strain HPV-77)

Storage Buffer Sucrose/SDS/NTE
Purification Method Ultracentrifugation

**Protein Concentration** 0.1-0.5 mg/mL (Modified Warburg-Christian Method)

# Cytomegalovirus

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Cytomegalovirus	Chemiluminescence	ELISA	Turbidimetry	Rapid Test
Native Antigens				
Cytomegalovirus Antigen	•	•		

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Native Antigens

Product Description	Presentation	Presentation Reference		
Cytomegalovirus Antigen#	mg/custom size*	3000-5260	-70°C**	
Cytomegalovirus Antigen	1mg/vial	3000-5310	-70°C**	

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1mg/vial. \*\*Avoid repeated freezing and thawing. #Sonication is recommended prior to use.

#### **Specifications**

SourceTissue CultureStorage BufferNTE, pH 8.0

**Protein Concentration** 0.4-0.7 mg/mL (Modified Warburg-Christian Method)



# Herpes

The following products have been reported to work in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Herpes			Chemiluminescence	ELISA	Turbidimetry	Rapid Test
	Recombinant Antigens					
	Recombinant gG1 Protein HSV-1		•	•		
	Recombinant gG2 Protein HSV-2	-	•	•		

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Recombinant Antigens

Product Description	Presentation	Reference	Storage
Recombinant gG1 Protein HSV-1*	0.5 mg/vial	3000-5288	-70°C**
Recombinant gG1 Protein HSV-1*	mg/custom size*	3000-5279	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing. v<sup>#</sup>This product is manufactured using CrisBio<sup>TM</sup> technology from ALGENEX S.L

#### **Specifications**

Source Trichoplusia ni.
Storage Buffer HEPES, NaCl, pH 7.5

Purification Method Ion Exchange and Affinity Chromatography

**Protein Concentration** 0.5-2 mg/mL (A<sub>280</sub> x 6.95) **Preservative** No Preservative Added

Product Description	Presentation	Reference	Storage
Recombinant gG2 Protein HSV-2*	0.5 mg/vial	3000-5282	-70°C**
Recombinant gG2 Protein HSV-2*	mg/custom size*	3000-5283	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing. #This product is manufactured using CrisBio<sup>TM</sup> technology from ALGENEX S.L.

#### **Specifications**

SourceTrichoplusia ni.Storage BufferHEPES, NaCl, pH 8.2

**Purification Method** Ion Exchange and Affinity Chromatography

 $\begin{array}{ll} \textbf{Protein Concentration} & 0.8\text{-}1.5~\text{mg/mL}~(\text{A}_{\text{280}}~\text{x}~5.45) \\ \textbf{Preservative} & \text{No Preservative Added} \end{array}$ 

# Chagas

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Chagas		Chemiluminescence	ELISA	Turbidimetry	Rapid Test
Re	ecombinant Antigens				
Red	ecombinant TcF Antigen	•			

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Recombinant Antigens

Product Description	Presentation	Reference	Storage
Recombinant TcF Ag	mg/custom size*	3000-5321	-70°C**
Recombinant TcF Ag	4mg/vial	3000-5322	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Details**

Source Escherichia coli
Storage Buffer Tris, NaCL, pH 8.0
Purification Method Chromatography
Protein Concentration 1-4 mg/ml (BCA n

Protein Concentration 1-4 mg/mL (BCA method)
Preservative No Preservative Added



The following products have been reported to work in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

HTLV		Chemiluminescence	ELISA	Turbidimetry	Rapid Test
	Recombinant Antigens				
	Recombinant HTLV Antigen	•			

Other uses may be applicable depending on customer needs. For further technical information or requests please contact Immunoassay@werfen.com.

### Recombinant Antigens

Product Description	Presentation	Reference	Storage
Recombinant HTLV Antigen	mg/custom size	3000-7066	-70°C*

These products are in R&D Stage and are for "Investigation / Research Use Only". The information contained in this catalogue is for informational purposes. Contact Immunoassay@werfen.com for further technical information and product availability. \*Avoid repeated freezing and thawing.

#### **Details**

**Source** Escherichia coli

**Storage Buffer** Sodium carbonate, NaCl, Glycerol, pH 9.3

Purification Method Affinity chromatography

**Protein Concentration** 1 mg/mL



### Adenovirus

The following products have been tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Adenovirus	Chemiluminescence	ELISA	Turbidimetry	Rapid Test
Monoclonal Antibodies				
Anti-Adenovirus mAb (2/6)		•		•
Anti-Adenovirus mAb (20/11)		•		•

Other uses may be applicable depending on customer use. For further technical information or requests please contact Immunoassay@werfen.com.

### Monoclonal Antibodies

Product Description	Presentation	Reference	Storage
Anti-Adenovirus mAb (2/6)	1mg/vial	3000-5312	-70°C**
Anti-Adenovirus mAb (2/6)	mg/custom size*	3000-5113	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum order 50 mg and minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

**Isotype** Mouse IgG1 Kappa

Source Cell Culture
Storage Buffer Citrate, pH 7.5

Purification Method Affinity Chromatography
Protein Concentration 1-4 mg/mL (A<sub>280</sub> x 0.71)
Preservative No Preservative Added

Product Description	Presentation	Reference	Storage
Anti-Adenovirus mAb (20/11)	1mg/vial	3000-5313	-70°C**
Anti-Adenovirus (20/11)	mg/custom size*	3000-5114	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum order 50 mg and minimum size 5 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

IsotypeMouse IgG1 KappaSourceCell CultureStorage BufferCitrate, pH 7.5

Purification Method
Protein Concentration
Preservative

Affinity Chromatography
1-4 mg/mL (A<sub>280</sub> x 0.71)
No Preservative Added

# Secondary Antibodies

The following products been have tested in the following applications. This information derives from use in commercial diagnostic assays and/or testing within our laboratories.

Secondary Antibodies	Chemiluminescence	ELISA	Turbidimetry	Rapid Test
Monoclonal Antibodies				
Anti-Human IgG mAb	•			
Anti-Human IgM mAb	•			

Other uses may be applicable depending on customer use. For further technical information or requests please contact Immunoassay@werfen.com.

### **Monoclonal Antibodies**

Product Description	Presentation	Reference	Storage
Anti-Human IgG mAb	mg/custom size*	3000-5327	-70°C**
Anti-Human IgG mAb	1mg/vial	3000-5324	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**

Product Description	Presentation	Reference	Storage
Anti-Human IgM mAb	mg/custom size*	3000-5328	-70°C**
Anti-Human IgM mAb	1mg/vial	3000-5325	-70°C**

<sup>\*</sup>For large quantities, packaging available upon request - minimum size 1 mg/vial. \*\*Avoid repeated freezing and thawing.

#### **Specifications**



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