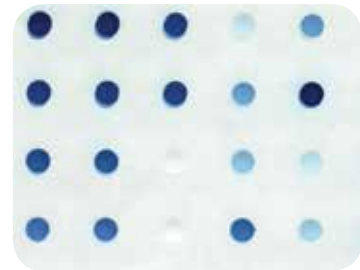


SurModics In Vitro Diagnostics



Product Catalog

 **SurModics**

From diagnostic assays (stabilizers, blockers, buffers, diluents) to detection chemistries (colorimetric substrates and chemiluminescent substrates) to antigens, SurModics IVD provides the critical components you need to develop sensitive, reproducible, and robust assays and technologies.

Draw on our 30+ years of research and development experience for the accuracy and consistency you need to create products and systems that are truly exceptional.

Protein Stabilizers / Blockers

Preserve the conformation and activity of dried proteins and proteins in solution in immunoassays, while simultaneously blocking nonspecific binding

Substrates

BioFX® colorimetric and chemiluminescent substrates to meet your detection needs for microwell, membrane, and immunohistochemistry applications

Antigens

Outstanding assay performance with a complete panel of recombinant and native autoimmune antigens and recombinant infectious disease antigens from DIARECT AG

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Microarray Slides & Custom Surfaces

Specialized polymer coatings to prevent the adsorption of unwanted proteins while increasing signal and allowing greater spotting densities

Accessory Reagents

A broad range of high quality stop reagents, diluents, and buffers

Product Application Table

	Horseradish Peroxidase (HRP)	Alkaline Phosphatase (AP)	General Stabilization	ELISA / EIA	Blotting	Microparticles	One-Component	Product Code
	ENZYME		APPLICATION			SPECIFICATIONS		
Blockers								
StabilBlot™ Protein-Free Blocker	X	X			X		X	SB01
StabilBlot™ BSA Blocker	X	X			X		X	SB02
StabilBlot™ Casein Blocker (5X, PBS)	X				X		X	SB03
StabilBlot™ Milk Blocker (10X)	X	X			X		X	SB04
StabilBlot™ Casein Blocker (5X, TBS)	X	X			X		X	SB05

Product Application Table

	Horse Radish Peroxidase (HRP)	Alkaline Phosphatase (AP)	General Stabilization	ELISA / EIA	Blotting	Microparticles	One-Component	Product Code
	ENZYME		APPLICATION			SPECIFICATIONS		
Stabilizers / Blockers								
StabilCoat® Immunoassay Stabilizer			X	X	X		X	SC01, SC05
StabilGuard® Immunoassay Stabilizer (BSA-Free)			X	X	X	X	X	SG01
StabilZyme® Protein-Free Stabilizer	X			X			X	SZPF
StabilZyme® Protein-Free AP Stabilizer		X		X			X	SAPF
StabilZyme® AP Conjugate Stabilizer		X		X			X	SA01
StabilZyme® HRP Conjugate Stabilizer	X			X			X	SZ02
StabilZyme® <i>SELECT</i> ® Stabilizer			X	X			X	SZ03
StabilZyme® <i>NOBLE</i> Stabilizer (BSA-Free)			X	X			X	SZ04
StabilCoat® Plus Microarray Stabilizer			X			X	X	SC02
StabilGuard® Choice Microarray Stabilizer (BSA-Free)			X			X	X	SG02

Product Application Table

	Horse radish Peroxidase (HRP)	Alkaline Phosphatase (AP)	ELISA / EIA	Blotting	Immunohistochemistry	One-Component	Two-Component	Product Code
	ENZYME		APPLICATION			SPECIFICATIONS		
Substrates								
ABTS	X		X			X		ABTS
AP-Blue		X	X	X			X	APBS
BCIP/NBT		X		X		X		BCIB, BCID
Chemiluminescent-AP		X	X	X		X		APU4, APU5, APS4, APS5
Chemiluminescent-HRP	X		X	X			X	CHMI, CHMM, LUMI, LERI
DAB	X			X	X		X	DABM - Blotting DABI - IHC
pNPP		X	X			X		PNPS
TMB	X		X	X		X	X	TMBS, TMBC, TMBW, TMSK, TTMB, TMDS, TBNP, TMBX TMBM*, ESPM*

* For use in blotting applications



Stabilizers / Blockers

SurModics stabilizers / blockers preserve the conformation and activity of proteins, such as antigens and antibodies, in their native folded state when dried or lyophilized to surfaces, or when in solution. This ensures the worry-free development and manufacturing of products that utilize antigens and/or antibodies as key components. Protein-free formulations are available in all categories.

Blockers

Membranes used in western blotting are porous and should be blocked to avoid non-specific binding and background. Our StabilBlot™ Blocker Family offers a range of options, both protein-based and synthetic-based, to block non-specific binding as well as enhance sensitivity when used as a blocker and antibody diluent.

StabilBlot™ Protein-Free Blocker

A synthetic alternative that eliminates cross-reactivity and increases sensitivity

Product Code: SB01	Application: Immunoblotting
Shelf Life: 24 months	Available Sizes: 125 mL, 1000 mL
Preservatives: Yes	pH: 6.5 - 7.5

StabilBlot™ BSA Blocker

Significantly reduces overall background and blotchiness

Product Code: SB02	Application: Immunoblotting
Shelf Life: 24 months	Available Sizes: 125 mL, 1000 mL
Preservatives: Yes	pH: 6.5 - 7.5

StabilBlot™ Casein Blocker (5X, PBS)

For strong blocking of background

Product Code: SB03	Application: Immunoblotting
Shelf Life: 24 months	Available Sizes: 25 mL, 125 mL, 1000 mL
Preservatives: Yes	pH 1X: 7.0 - 8.0

StabilBlot™ Milk Blocker (10X)

For the strongest blocking of background

Product Code: SB04	Application: Immunoblotting
Shelf Life: 24 months	Available Sizes: 15 mL, 125 mL, 1000 mL
Preservatives: Yes	pH 1X: 6.9 - 7.9

StabilBlot™ Casein Blocker (5X, TBS)

For strong blocking of background

Product Code: SB05	Application: Immunoblotting
Shelf Life: 24 months	Available Sizes: 25 mL, 125 mL, 1000 mL
Preservatives: Yes	pH 1X: 7.0 - 8.0

StabilBlot™ Sample Pack

A convenient sample pack containing all five formulations

Product Code: SBSP	Application: Immunoblotting
Shelf Life: 24 months	Available Sizes: 125 mL, 125 mL, 25 mL, 15 mL, 25 mL
Preservatives: Yes	pH: N/A

SurModics online IVD products store features stabilizers, blockers, antigens, BioFX® substrates, buffers, diluents and more.

Immunoassay Stabilizers

Our immunoassay stabilizers preserve the conformation of proteins in their native folded state when dried or lyophilized and then coated to a range of surfaces, including microtiter plates, latex beads, and magnetic particles.

StabilCoat® Immunoassay Stabilizer

Effectively preserves the conformation and activity of dried proteins in immunoassays

Product Code: SC01	Application: Dried or lyophilized protein stability
Product Buffer: PBS	Available Sizes: 50 mL, 1000 mL, 2000 mL
Shelf Life: 36 months	Preservatives: No pH: 7.0 – 7.4

StabilGuard® Immunoassay Stabilizer (BSA-Free)

Maintains the activity of antibodies and other biomolecules adsorbed or immobilized to solid substrates without the use of BSA

Product Code: SG01	Application: Dried or lyophilized protein stability
Product Buffer: PBS	Available Sizes: 50 mL, 1000 mL
Shelf Life: 36 months	Preservatives: No pH: 6.6 – 7.2

5X StabilCoat® Immunoassay Stabilizer

Effectively preserves the conformation and activity of dried proteins in immunoassays

Product Code: SC05	Application: Dried or lyophilized protein stability
Product Buffer: PBS	Available Sizes: 100 mL, 1000 mL, 2000 mL
Shelf Life: 24 months	Preservatives: No pH: 7.0 – 7.4

In addition to increased stability, SurModics protein stabilizers can be used as blocking buffers and assay diluents to increase sensitivity by decreasing the background noise caused by nonspecific binding of antibodies and other biomolecules.

Conjugate Stabilizers

Our conjugate stabilizers preserve proteins in their native folded state in solution, such as serum samples, biological buffers, and controls. Protein-based and protein-free formulations are available specifically for Horseradish Peroxidase (HRP) and Alkaline Phosphatase (AP) conjugates.

StabilZyme® AP Conjugate Stabilizer

Developed specifically for Alkaline Phosphatase (AP) conjugates in solution

Product Code: SA01	Application: In-solution protein stability
Product Buffer: MES	Available Sizes: 50 mL, 1000 mL, 2000 mL
Shelf Life: 30 months	Preservatives: Yes pH: 5.5 – 6.5

NEW StabilZyme® Protein-Free AP Stabilizer

Protein-free stabilizer for Alkaline Phosphatase (AP)

Product Code: SAPP	Application: In-solution protein stability for AP
Product Buffer: MOPS	Available Sizes: 50 mL, 1000 mL, 2000 mL
Shelf Life: 30 months	Preservatives: Yes pH: 6.3 – 7.3

StabilZyme® HRP Conjugate Stabilizer

Developed specifically for Horseradish Peroxidase (HRP) conjugates in solution

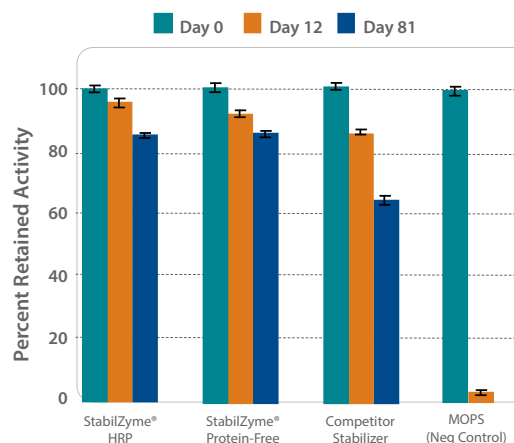
Product Code: SZ02	Application: In-solution protein stability
Product Buffer: MOPS	Available Sizes: 50 mL, 1000 mL, 2000 mL
Shelf Life: 30 months	Preservatives: Yes pH: 6.2 – 6.7

NEW StabilZyme® Protein-Free Stabilizer

Eliminate interference and cross-reactivity

Product Code: SZPF	Application: In-solution protein stability
Product Buffer: MOPS	Available Sizes: 50 mL, 1000 mL, 2000 mL
Shelf Life: 30 months	Preservatives: Yes pH: 6.3 – 7.3

Figure: Percent retained activity is determined by dividing the absorbance units of the 37°C accelerated sample by the absorbance units of the 4°C control. Arrhenius accelerated stability projections for StabilZyme Protein-Free Stabilizer demonstrate approximately 86% retained activity for greater than 2 years.



Conjugate Stabilizers (continued)

StabilZyme *SELECT*® Stabilizer

Stabilizes biologically active components in solution and protects the activity of proteins commonly used in immunoassays, such as antisera controls and in-solution competitive assays

Product Code: SZ03	Application: In-solution protein stability
Product Buffer: None	Available Sizes: 50 mL, 1000 mL, 2000 mL
Shelf Life: 30 months	Preservatives: Yes pH: 6.5 – 7.5

StabilZyme® *NOBLE* Stabilizer (BSA-Free)

Designed for conjugated proteins, antibody-coated particles, and unmodified proteins in solution without the use of BSA

Product Code: SZ04	Application: In-solution protein stability
Product Buffer: MOPS	Available Sizes: 50 mL, 1000 mL
Shelf Life: 30 months	Preservatives: Yes pH: 6.0 – 7.0

StabiliZyme Protein-Free Stabilizers eliminate interference and cross-reactivity. Both our BSA-containing stabilizers and protein-free options offer excellent stability, specificity and sensitivity.

Stabilizers for Microsphere-Based Assays and Microarray Slides

These stabilizers preserve the conformation and activity of proteins bound to microspheres and proteins on microarrays stored long-term in solution or in the dried state. They produce more accurate results by increasing signal and reducing background.

StabilCoat® Plus Microarray Stabilizer

Improves the stability of proteins bound to microspheres stored in solution, and array proteins stored in the dried state

Product Code: SC02	Application: Dried or in-solution protein stability
Product Buffer: PBS	Available Sizes: 50 mL, 1000 mL
Shelf Life: 36 months	Preservatives: Yes pH: 7.0 – 7.4

StabilGuard® Choice Microarray Stabilizer (BSA-Free)

Improves the stability of proteins bound to microspheres stored in solution, and array proteins stored in the dried state without the use of BSA

Product Code: SG02	Application: Dried or in-solution protein stability
Product Buffer: PBS	Available Sizes: 50 mL, 1000 mL
Shelf Life: 36 months	Preservatives: Yes pH: 6.6 – 7.2

SurModics IVD manufacturing process includes custom manufacturing, bulk manufacturing, custom labeling, custom bottling, custom formulation and custom dispenses for many of the stabilizer products and substrate products shown. Contact us with your requirements.



Colorimetric Substrates

Enzymatic conversion of substrates to produce a visible signal is the most commonly used detection method for many immunological assays, including ELISA, immunoblotting, and immunohistochemistry. *BioFX* colorimetric substrates for assay detection have an established reputation for high-quality and performance. They provide stability, durability and lot-to-lot consistency and offer dramatically improved sensitivity with low background. SurModics' *BioFX* colorimetric substrates are available in both bulk and custom dispenses.

HRP (Horseradish Peroxidase) Colorimetric Substrates

Choosing the optimal substrate can increase the sensitivity and dynamic range of your immunoassay and is a critical consideration during assay design.

TMB Microwell Substrates

TMB Super Sensitive One Component HRP Microwell Substrate

Product Code: TMBS
Shelf Life: 30 months

Application: Microwell

TMB Slow Kinetic One Component HRP Microwell Substrate

Product Code: TMSK
Shelf Life: 42 months

Application: Microwell

TMB One Component HRP Microwell Substrate

Product Code: TMBW
Shelf Life: 48 months

Application: Microwell

NEW TMB Extended Range HRP Microwell Substrate

Product Code: TMBX
Shelf Life: 30 months

Application: Microwell

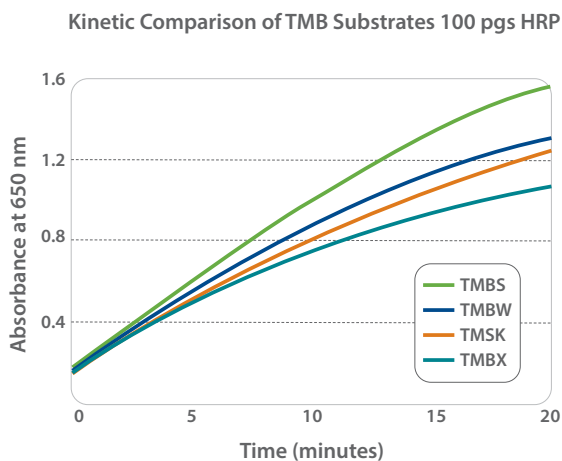


Figure: Rate of color development for TMB substrates compared in model assay. Horseradish peroxidase in StabilZyme HRP conjugate stabilizer incubated on anti-HRP coated 96-well plate. After washing, TMB substrates were added and absorbance at 650 nm measured over time. Graph shows results for 100 pg/ml HRP condition.

HRP (Horseradish Peroxidase) Colorimetric Substrates (continued)

TMB Microwell Substrates (continued)

TMB Conductivity One Component HRP Microwell Substrate

Product Code: TMBC
Shelf Life: 36 months

Application: Microwell

TMB Double Slow One Component HRP Microwell Substrate

Product Code: TMDS
Shelf Life: 36 months

Application: Microwell

TMB Super Slow One Component HRP Microwell Substrate

Product Code: TTMB
Shelf Life: 30 months

Application: Microwell

TMB Membrane Substrates

TMB One Component HRP Membrane Substrate

- One-component system
 - Blue/purple reaction product
-

Product Code: TMBM
Shelf Life: 30 months

Application: Membrane

TMB Enhanced One Component HRP Membrane Substrate

- One-component system
 - More defined precipitation than TMBM
-

Product Code: ESPM
Shelf Life: 48 months at 4°C
24 months at RT

Application: Membrane

HRP (Horseradish Peroxidase) Colorimetric Substrates (continued)

Additional HRP Colorimetric Substrates

NEW ABTS One Component HRP Microwell Substrate

- One-component system read at 405/410 nm
- Enhancer available for higher kinetic activity

Product Code: ABTS
Shelf Life: 36 months

Application: Microwell

DAB Membrane Substrate

- Two-component system
- Intense brown precipitate

Product Code: DABM
Shelf Life: 36 months

Application: Membrane

DAB Immunohistochemistry Substrate

- Two-component system
- Intense brown precipitate

Product Code: DABI
Shelf Life: 36 months

Application: Immunohistochemistry

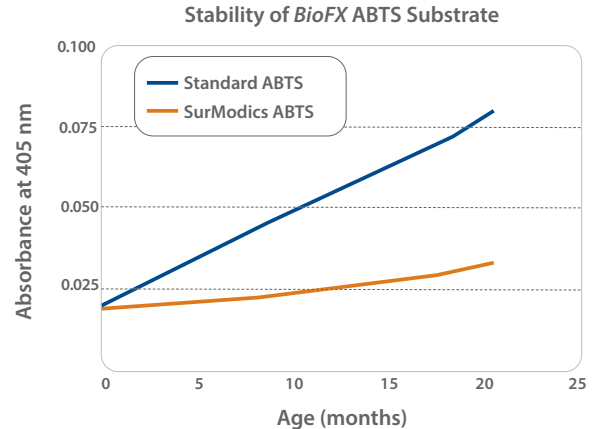


Figure: SurModics *BioFX* ABTS formulation has a much more stable background compared to standard ABTS formulations. Absorbance at 405 nm was monitored for 24 months on ABTS formulations stored at 4°C.

AP (Alkaline Phosphatase) Colorimetric Substrates

These colorimetric substrates utilize chemistries that protect the dyes from unpredictable color change while providing dramatically improved sensitivity with low background.

AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets

- Patented one-component system
- No spontaneous color change

Product Code: PNPS
Shelf Life: 36 months

Application: Microwell
U.S. Patent No.: 7001717

BCIP/NBT Purple One Component AP Membrane Substrate

- One-component system
- Purple precipitate

Product Code: BCID
Shelf Life: 36 months

Application: Membrane

BCIP/NBT Blue One Component AP Membrane Substrate

- One-component system
- Blue precipitate

Product Code: BCIB
Shelf Life: 36 months

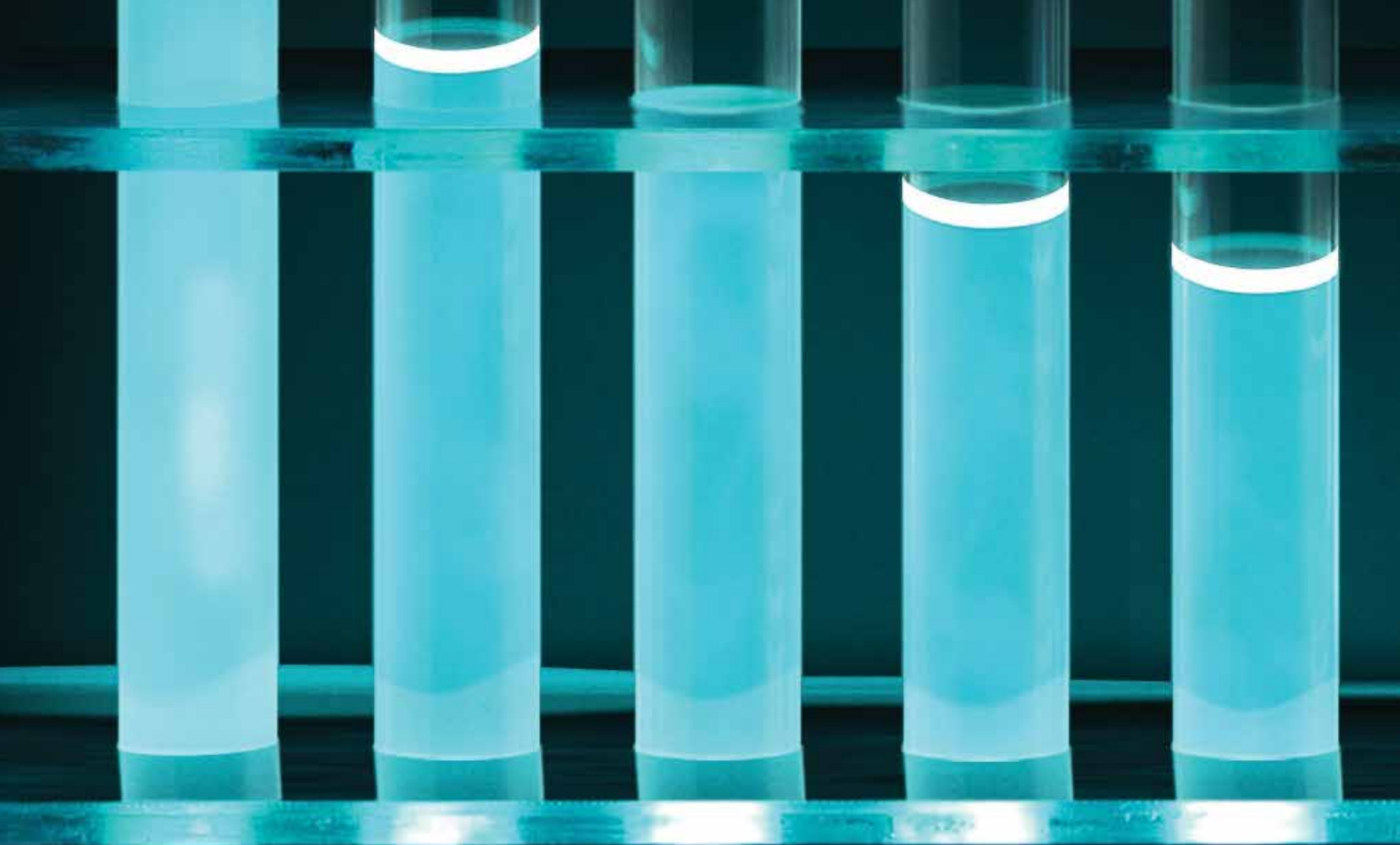
Application: Membrane

AP-Blue SpectraFX Microwell and/or Membrane Substrate

- Two-component system
- Microwell applications read at 490 nm to 650 nm

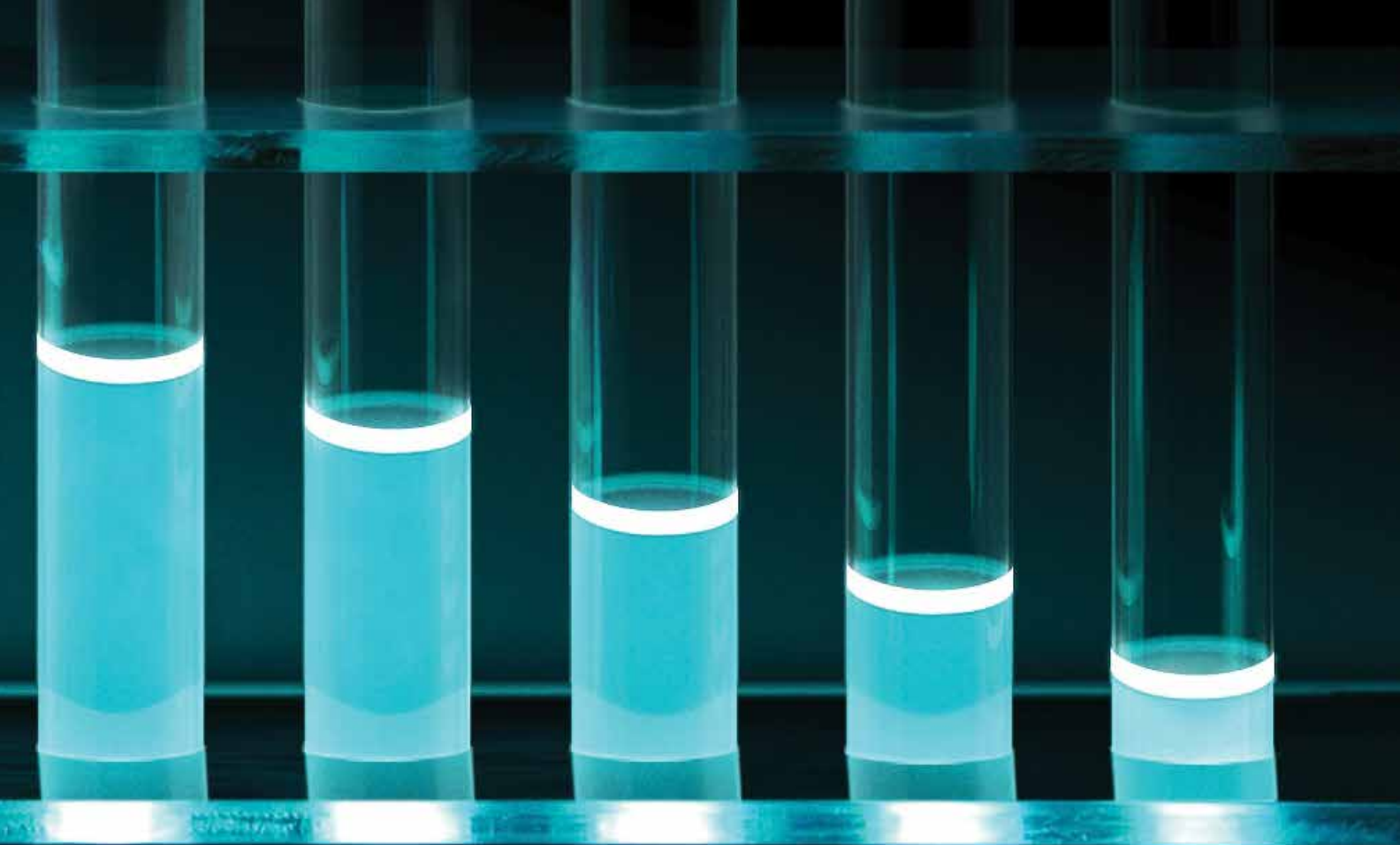
Product Code: APBS
Shelf Life: 18 months

Application: Microwell and/or Membrane



Chemiluminescent Substrates

Chemiluminescence provides greater sensitivity than any other available detection method for both membrane and microwell applications. *BioFX* chemiluminescent substrates are characterized by varying lengths of light emission and intensity, allowing you to choose the sensitivity level best suited to your particular assay requirements.



These sensitive formulations help you conserve precious antibodies and antigens.

HRP (Horseradish Peroxidase) Chemiluminescent Substrates

These enhanced luminol chemiluminescent substrate formulations offer improved detection with picogram to femtogram levels of sensitivity, high signal-to-noise ratios, and wide dynamic ranges.

Chemiluminescent Ultra Sensitive HRP Microwell Substrate

- Two-component system (1:2)
- Luminol-based chemistry
- Maximum sensitivity for microwell applications

Product Code: CHMI Application: Microwell
Shelf Life: 18 months

Chemiluminescent Super Sensitive HRP Microwell and/or Membrane Substrate

- Two-component system (1:1)
- Luminol-based chemistry
- Maximum sensitivity for microwell and membrane applications

Product Code: LUMI Application: Microwell and/or Membrane
Shelf Life: 18 months

Chemiluminescent Ultra Sensitive HRP Membrane Substrate

- Two-component system (1:2)
- Luminol-based chemistry
- Maximum sensitivity for membrane applications

Product Code: CHMM Application: Membrane
Shelf Life: 18 months

Chemiluminescent Sensitive Plus HRP Microwell and/or Membrane Substrate

- Two-component system (1:1)
- Luminol-based chemistry
- High sensitivity for microwell and membrane applications

Product Code: LERI Application: Microwell and/or Membrane
Shelf Life: 18 months

AP (Alkaline Phosphatase) Chemiluminescent Substrates

These products offer extremely sensitive detection based on dioxetane chemistry with detection potential to attogram sensitivity in easy-to-use, one-component formulations.

Chemiluminescent Ultra Sensitive AP Microwell and/or Membrane Substrate (450 nm)

- One-component system based on dioxetane chemistry
- Ultimate sensitivity for microwell and membrane applications
- Microwell applications read at 450 nm

Product Code: APU4

Shelf Life: 24 months

Chemiluminescent Ultra Sensitive AP Microwell and/or Membrane Substrate (540 nm)

- One-component system based on dioxetane chemistry
- Ultimate sensitivity for microwell and membrane applications
- Microwell applications read at 540 nm

Product Code: APU5

Shelf Life: 24 months

Chemiluminescent Super Sensitive AP Microwell and/or Membrane Substrate (450 nm)

- One-component system based on dioxetane chemistry
- Extreme sensitivity for microwell and membrane applications
- Microwell applications read at 450 nm

Product Code: APS4

Shelf Life: 24 months

Chemiluminescent Super Sensitive AP Microwell and/or Membrane Substrate (540 nm)

- One-component system based on dioxetane chemistry
- Extreme sensitivity for microwell and membrane applications
- Microwell applications read at 540 nm

Product Code: APS5

Shelf Life: 24 months



Antigens

DIARECT antigens have a proven reputation for quality and sensitivity in ELISA and blotting applications. Utilizing three different protein expression systems, DIARECT has the experience and know-how to allow straightforward comparison for the production of difficult proteins. No other company offers as many recombinant autoimmune and infectious disease antigens as DIARECT. You can also expect the same high quality in their autoimmune antigens derived from native sources.

Autoimmune Antigens

DIARECT has strong capabilities in the baculovirus/Sf9 insect cell system, which has a proven track record for the successful expression of human autoimmune antigens and numerous other proteins of eukaryotic origin. *E. coli* and mammalian systems, together with a growing collection of expression tools, complete the range of diverse expression systems.

ANCA Associated Diseases

Myeloperoxidase (MPO; non recombinant)

Clinical Association: Systemic Vasculitides

Product Code: A18500 & A18501

Proteinase 3 (PR3; non recombinant)

Clinical Association: Systemic Vasculitides / Wegener's Granulomatosis

Product Code: A18600 & A18601

BPI (non recombinant)

Clinical Association: ANCA target in diverse diseases

Product Code: A19200 & A19201

Pernicious Anemia

Intrinsic Factor

Clinical Association: Pernicious Anemia

Product Code: A16700 & A16701

Thyroid Autoimmune Disease

Thyroid Peroxidase (TPO)

Clinical Association: Graves' Disease

Product Code: A12100 & A12101

Thyroglobulin (non recombinant)

Clinical Association: Hashimoto Thyroiditis

Product Code: A12200 & A12201

Inflammatory Bowel Diseases

GP2

Clinical Association: Crohn's Disease

Product Code: A19600 & A19601

Goodpasture's Syndrome

Glomerular Basement Membrane (dissociated)

Clinical Association: Goodpasture's Syndrome

Product Code: A16800 & A16801

SurModics IVD is the exclusive distributor of DIARECT's human recombinant and native autoimmune antigens in North America.

Nuclear Antigens (ANA / ENA)

dsDNA (plasmid)

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A12300 & A12301

Proliferating Cell Nuclear Antigen (PCNA)

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A15400 & A15401

Ribosomal Phosphoprotein P0

Clinical Association: SLE (CNS involvement)
Product Code: A14100 & A14101

Ribosomal Phosphoprotein P1

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A14200 & A14201

Ribosomal Phosphoprotein P2

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A14300 & A14301

U1-snRNP 68/70 kDa

Clinical Association: Mixed Connective Tissue Disease / SLE
Product Code: A13000 & A13001

U1-snRNP A

Clinical Association: Mixed Connective Tissue Disease / SLE
Product Code: A13100 & A13101

U1-snRNP C

Clinical Association: Mixed Connective Tissue Disease / SLE
Product Code: A13200 & A13201

U-snRNP B/B'

Clinical Association: Mixed Connective Tissue Disease / SLE
Product Code: A13300 & A13301

DNA Topoisomerase I (Scl-70; full length)

Clinical Association: Scleroderma (diffuse)
Product Code: A12400 & A12401

DNA Topoisomerase I (Scl-70; truncated)

Clinical Association: Scleroderma (diffuse)
Product Code: A14500 & A14501

DNA Topoisomerase I (Scl-70; non recombinant; bovine)

Clinical Association: Scleroderma (diffuse)
Product Code: A11500 & A11501

Centromere Protein A (CENP-A)

Clinical Association: Scleroderma (CREST)
Product Code: A16900 & A16901

Centromere Protein B (CENP-B)

Clinical Association: Scleroderma (CREST)
Product Code: A12500 & A12501

Nuclear Antigens (ANA / ENA continued)

Ro/SS-A (52 kDa)

Clinical Association: SCLE / Neonatal LE / Sjögren's Syndrome
Product Code: A12700 & A12701

Ro/SS-A (60 kDa; non recombinant; bovine)

Clinical Association: SCLE / Neonatal LE / Sjögren's Syndrome
Product Code: A15500 & A15501

Ro/SS-A (60 kDa; recombinant)

Clinical Association: SCLE / Neonatal LE / Sjögren's Syndrome
Product Code: A17400 & A17401

La/SS-B

Clinical Association: SCLE / Neonatal LE / Sjögren's Syndrome
Product Code: A12800 & A12801

Histidyl-tRNA Synthetase (Jo-1)

Clinical Association: Polymyositis / Dermatomyositis
Product Code: A12900 & A12901

Threonyl-tRNA Synthetase (PL-7)

Clinical Association: Polymyositis / Dermatomyositis
Product Code: A15600 & A15601

Alanyl-tRNA Synthetase (PL-12)

Clinical Association: Polymyositis / Dermatomyositis
Product Code: A15700 & A15701

Mi-2

Clinical Association: Dermatomyositis
Product Code: A18100 & A18101

SRP54

Clinical Association: Polymyositis / Dermatomyositis
Product Code: A18400 & A18401

TIF1 gamma

Clinical Association: Polymyositis / Dermatomyositis
Product Code: A11000 & A11001

Glycyl-tRNA Synthetase (EJ)

Clinical Association: Polymyositis / Dermatomyositis
Product Code: A11100 & A11101

MDA5

Clinical Association: Polymyositis / Dermatomyositis
Product Code: A30000 & A30001

Asparaginyl-tRNA Synthetase (KS)

Clinical Association: Polymyositis / Dermatomyositis
Product Code: A30100 & A30101

Nuclear Antigens (ANA / ENA continued)

PM/Scl 100

Clinical Association: Polymyositis / Scleroderma
Product Code: A16000 & A16001

PM/Scl 75

Clinical Association: Myositis / Systemic Sclerosis / Overlap Syndrome
Product Code: A17000 & A17001

Ku (p70/p80)

Clinical Association: Overlap Syndrome / Myositis / SLE
Product Code: A17300 & A17301

Sm (non recombinant; bovine)

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A17500 & A17501

RNP/Sm (non recombinant; bovine)

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A11600 & A11601

SmD

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A11700 & A11701

SmD1

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A11800 & A11801

SmD2

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A11900 & A11901

SmD3

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A12000 & A12001

Nucleolin

Clinical Association: Systemic Lupus Erythematosus (SLE)
Product Code: A19700 & A19701

Autoimmune Hepatitis and Liver Disease

M2

Clinical Association: Primary Biliary Cirrhosis
Product Code: A18000 & A18001

Cytochrome P450 2D6 (LKM 1 hp)

Clinical Association: Autoimmune Hepatitis II
Product Code: A19800 & A19801

Formiminotransferase Cyclodeaminase (LC 1)

Clinical Association: Autoimmune Hepatitis II
Product Code: A13700 & A13701

Sp100

Clinical Association: Primary Biliary Cirrhosis
Product Code: A18900 & A18901

gp210

Clinical Association: Primary Biliary Cirrhosis
Product Code: A19000 & A19001

Nup62

Clinical Association: Primary Biliary Cirrhosis
Product Code: A19400 & A19401

BCOADC-E2 (M2 component)

Clinical Association: Primary Biliary Cirrhosis
Product Code: A17700 & A17701

OGDC-E2 (M2 component)

Clinical Association: Primary Biliary Cirrhosis
Product Code: A17800 & A17801

PDC-E2 (M2 component)

Clinical Association: Primary Biliary Cirrhosis
Product Code: A17900 & A17901

Anti-Phospholipid / Thromboembolic Syndrome

β 2-Glycoprotein I (Apolipoprotein H)

Clinical Association: Thromboembolic Syndrome
Product Code: A14900 & A14901

β 2-Glycoprotein I (Apo H; non recombinant; human)

Clinical Association: Thromboembolic Syndrome
Product Code: A11300 & A11301

β 2-Glycoprotein I (Apo H; non recombinant; bovine)

Clinical Association: Thromboembolic Syndrome
Product Code: A11400 & A11401

Gastrointestinal / Celiac Disease

Tissue Transglutaminase (tTG, expressed in baculovirus/Sf9)

Clinical Association: Celiac Disease
Product Code: A15200 & A15201

Tissue Transglutaminase (tTG, expressed in *E. coli*)

Clinical Association: Celiac Disease
Product Code: A14400 & A14401

Gliadin (recombinant; deamidated)

Clinical Association: Celiac Disease
Product Code: A19500 & A19501

Infectious Disease Antigens

DIARECT has strong capabilities in the baculovirus/Sf9 insect cell system, which has a proven track record for the successful expression of infectious disease antigens and numerous other proteins of eukaryotic origin. *E. coli* and mammalian systems, together with a growing collection of expression tools, complete the range of diverse expression systems.

Lyme Disease - Recombinant Antigens

Borrelia burgdorferi p100

Clinical Association: Lyme Disease
Product Code: A40100 & A40101

Borrelia burgdorferi p41

Clinical Association: Lyme Disease
Product Code: A40200 & A40201

Borrelia burgdorferi OspC

Clinical Association: Lyme Disease
Product Code: A40300 & A40301

Borrelia burgdorferi DbpA

Clinical Association: Lyme Disease
Product Code: A40400 & A40401

Borrelia burgdorferi BmpA

Clinical Association: Lyme Disease
Product Code: A40500 & A40501

Borrelia burgdorferi DbpB

Clinical Association: Lyme Disease
Product Code: A40600 & A40601

Borrelia garinii p58

Clinical Association: Lyme Disease
Product Code: A40700 & A40701

Borrelia spielmanii OspC

Clinical Association: Lyme Disease
Product Code: A40800 & A40801

Borrelia afzelii DbpA

Clinical Association: Lyme Disease
Product Code: A40900 & A40901

Borrelia afzelii OspA

Clinical Association: Lyme Disease
Product Code: A41000 & A41001

Borrelia afzelii BmpA

Clinical Association: Lyme Disease
Product Code: A41100 & A41101

Borrelia burgdorferi OspA

Clinical Association: Lyme Disease
Product Code: A41200 & A41201

Lyme Disease - Recombinant Antigens (continued)

Borrelia burgdorferi NapA

Clinical Association: Lyme Disease
Product Code: A41300 & A41301

Borrelia garinii VlsE1

Clinical Association: Lyme Disease
Product Code: A41400 & A41401

NEW *Borrelia burgdorferi* p45

Clinical Association: Lyme Disease
Product Code: A41500 & A41501

NEW *Borrelia burgdorferi* p58

Clinical Association: Lyme Disease
Product Code: A41600 & A41601

NEW *Borrelia burgdorferi* p66

Clinical Association: Lyme Disease
Product Code: A41700 & A41701

Fifth Disease - Erythema infectiosum

Parvovirus B19 VLP VP2

Clinical Association: Fifth Disease
Product Code: A48000 & A48001

Parvovirus B19 VLP VP1/VP2 Co-Capsid

Clinical Association: Fifth Disease
Product Code: A48100 & A48101

SurModics IVD is the exclusive distributor of
DIARECT's recombinant infectious disease antigens
in North America.



Accessory Reagents

Proprietary *BioFX* stop reagents for colorimetric substrates are available as dry blends or in liquid formulations. SurModics offers several options for the dilution and blocking of antigens and antibodies. Proprietary non-fat dry milk, casein, and fish gelatin solutions are available in multiple buffer configurations. These formulations offer scientists more flexibility for assay development.

Stop Reagents

Proprietary BioFX® stop reagents are available for TMB substrates as dry blends or in liquid formulations for reading at both 450 nm and 650 nm. Stop reagents for ABTS and pNPP are also available.

HRP and AP Microwell Stop Reagents

450 nm Stop Reagent for TMB Microwell Substrates

Product Code: STPR Shelf Life: 36 months
Form: Dry Blend

650 nm Stop Reagent for TMB Microwell Substrates

Product Code: BSTP Shelf Life: 36 months
Form: Dry Blend

405/410 nm Stop Reagent for ABTS Microwell Substrate

Product Code: ABSS Shelf Life: 36 months
Form: Dry Blend

NEW 450 nm BioFX® Liquid Nova-Stop Solution for TMB Microwell Substrates

Product Code: NTSP Shelf Life: 48 months
Form: Liquid

450 nm Liquid Stop Solution for TMB Microwell Substrates

Product Code: LSTP Shelf Life: 36 months
Form: Solution

650 nm Liquid Stop Solution for TMB Microwell Substrates

Product Code: LBSP Shelf Life: 36 months
Form: Solution

AP Stop Reagent For PNPS, APBS, & APRS Microwell Substrates

Product Code: APSR Shelf Life: 36 months
Form: Dry Blend

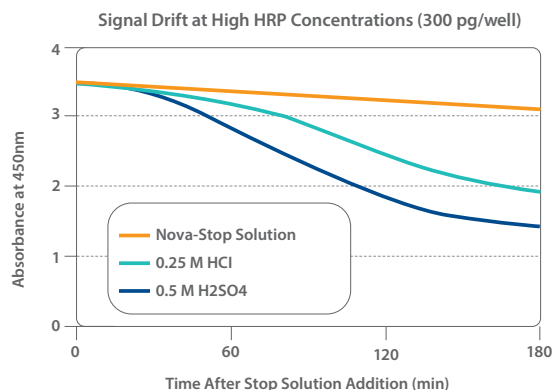


Figure – Horseradish peroxidase (HRP) added to TMB at 300 pg/100µL (simulates high assay signal). TMB solutions distributed into 96-well plate (100µL/well) and allowed to develop for 20 minutes. Stop reagents (100µL) added; signal at 450 nm monitored for 3 hours.

Blocks and Diluents

SurModics offers several *BioFX* proprietary options for the dilution and blocking of antigens and antibodies in multiple buffer configurations.

Non-Fat Dry Milk

Borate Buffered Saline Milk
Blocking Solution – 10X Concentrate

Product Code: MLKB Shelf Life: 24 months

Fish Gelatin

Blocking Buffer - Fish

Product Code: NMBB Shelf Life: 24 months

Casein

Tris Buffered Saline/Casein
Block and Diluent – 10X Concentrate

Product Code: TBSC Shelf Life: 24 months

Phosphate Buffered Saline/Casein
Block and Diluent – 5X Concentrate

Product Code: PBSC Shelf Life: 24 months

Bovine Serum Albumin (BSA)

Blocking Buffer - BSA

Product Code: LLBB Shelf Life: 24 months

Synthetic

Blocking Buffer - Synthetic

Product Code: STSB Shelf Life: 24 months

Protein-Free (HAMA Blocker)

SurModics Assay Diluent (HAMA Blocker)

Product Code: SM01 Shelf Life: 24 months

Washing and Coating Solutions

BioFX coating and washing formulations offer scientists more flexibility for assay development.

Tris Buffered Saline Wash Solution – 10X Concentrate

Product Code: WSHW

Shelf Life: 36 months

ELISA Plate Coating Solution – 10X Concentrate

Product Code: COAT

Shelf Life: 36 months

Immunohistochemistry

SurModics offers *BioFX* immunohistochemistry options to meet your needs.

Alkaline Phosphatase/Horseradish Peroxidase Block

A ready-to-use blocking reagent for immunohistochemistry samples. The solution blocks both alkaline phosphatase and peroxidase endogenous enzymatic activity.

Product Code: APHP

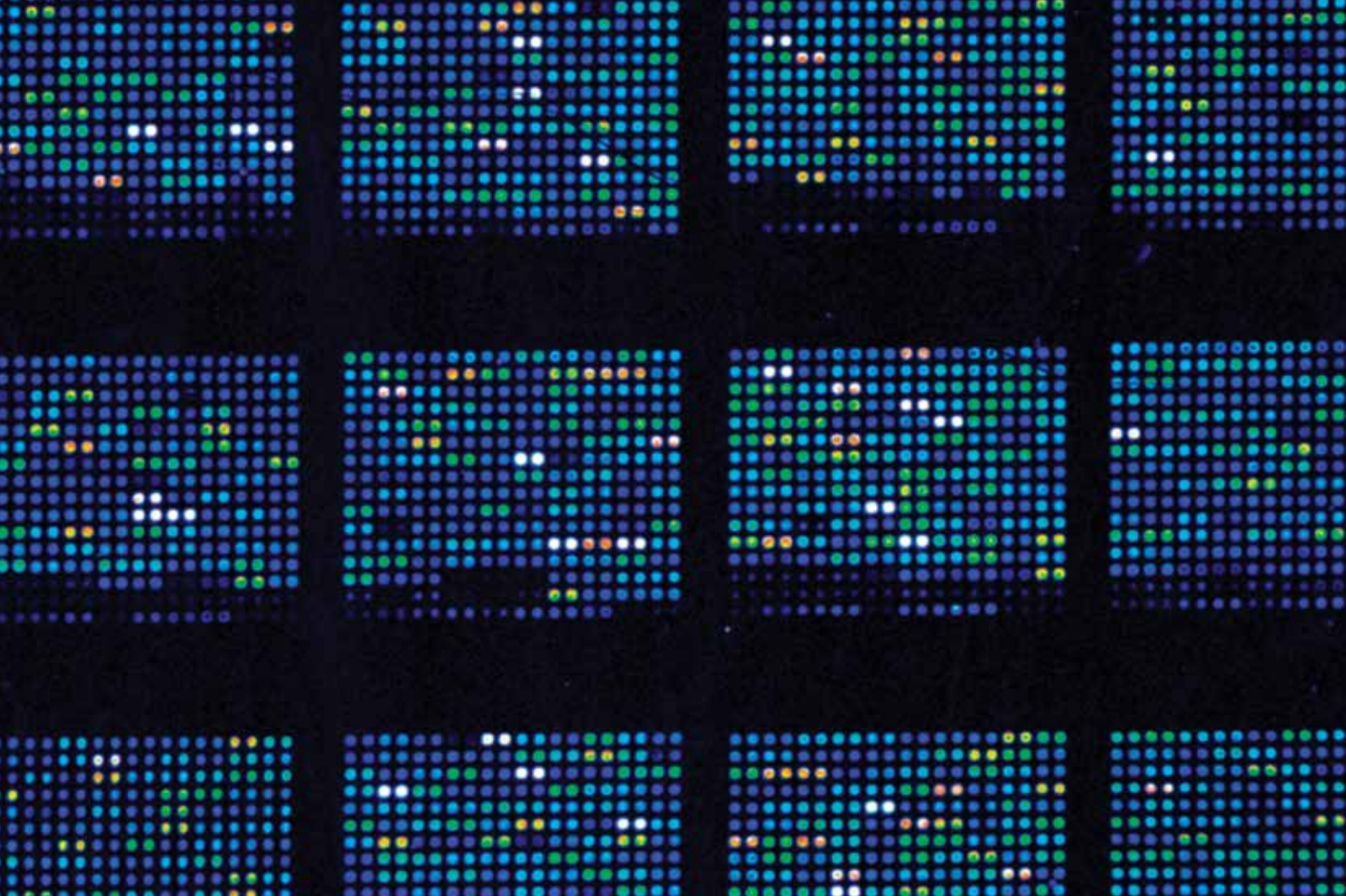
Shelf Life: 36 months

Fluorescence Preserving Media

An aqueous-based mounting media with a proprietary formulation that inhibits the photo-bleaching in fluorescent reactions.

Product Code: FLPM

Shelf Life: 24 months



Microarray Slides

SurModics offers a variety of products for customized DNA, RNA, and protein microarray development. CodeLink® and CodeLink® HD (high-density) activated microarray slides and TRIDIA™ EP (epoxy) microarray slides offer the precision, reproducibility, and sensitivity required for successful microarray applications.

Microarray Slides

SurModics' patented coating produces a three-dimensional matrix that will covalently bind DNA, RNA, and protein. These slides are easy to use and are compatible with most available arraying and scanning equipment.

CodeLink® Activated Microarray Slides

Provide high sensitivity and very low background with enhanced DNA, RNA, and protein attachment

Product Code: DN01
Shelf Life: 10 months

Available Size: 25 slides per box

TRIDIA™ EP (Epoxy) Microarray Slides

Contains an epoxide reactive group for binding amine-modified and unmodified nucleic acids and proteins

Product Code: DEPX
Shelf Life: 24 months

Available Size: 25 slides per box

CodeLink® HD Activated Microarray Slides

Allow for higher spotting densities than standard CodeLink microarray slides

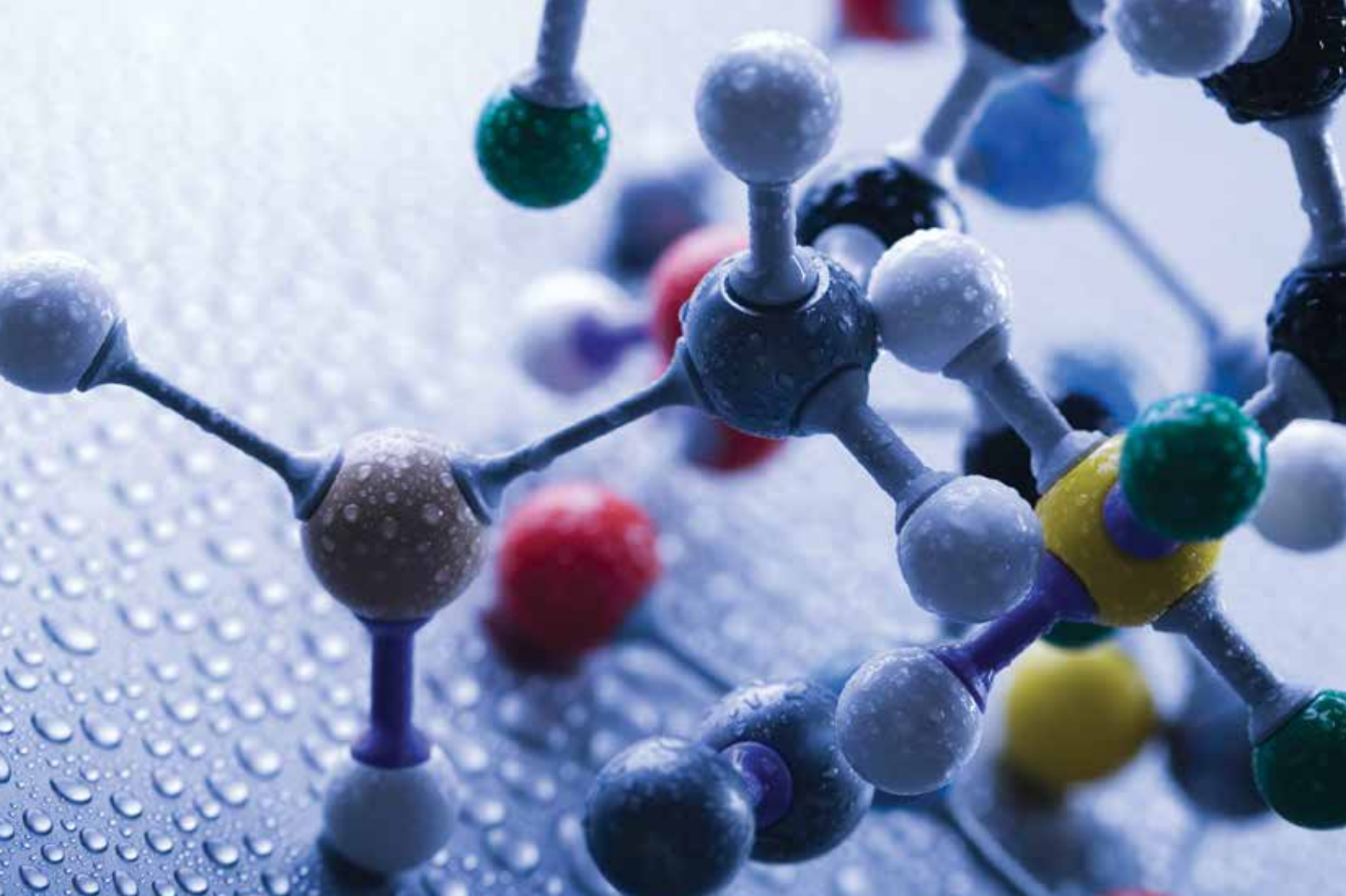
Product Code: DHD1
Shelf Life: 12 months

Available Size: 23 slides per box

These activated slides ensure slide-to-slide consistency and maximize DNA, RNA, and protein attachment while allowing for optimized protocols for spotting and hybridization.

SurModics' slides may be suitable for the manufacture, use and/or analysis of oligonucleotide arrays, including uses covered under patents owned by Oxford Gene Technology Limited or related companies ("OGT"). However, SurModics is not licensed under any of these patents and does not have the right to pass on a license under any such patents to the end user. Therefore the end user of these slides should first check with OGT as to whether a license is necessary to manufacture, use, or analyze an oligonucleotide array and if so, secure one.

To enquire about a license under OGT's oligonucleotide array patents, please contact licensing@ogt.co.uk. For information about OGT please visit its web site at www.ogt.co.uk.



TRIDIA™ Surfaces

SurModics' specialized *TRIDIA* polymer coatings have intrinsic non-fouling properties that prevent the adsorption of unwanted proteins to plastics, metals, glass, and other substrates, while increasing the signal and processing speed of the test by eliminating time-consuming blocking steps. The biocapture chemistries of the surfaces provide for the homogeneous addition of increased analyte densities to virtually any surface.

Custom *In Vitro* Diagnostic Surfaces

SurModics' PhotoLink® chemistry covalently binds molecules to various surfaces. This unique chemistry allows us to tailor the surface to meet your specific needs by selecting from a variety of passivating polymers and reactive groups to create unique combinations.

Other available SurModics coatings can improve flow characteristics for membranes and microfluidic channels or reduce the adherence of interfering blood components on your device.

TRIDIA™ HD (High-Density) Surface

- Binds amine-modified oligos/DNA
- Binds proteins (antibodies, antigens)
- Higher spotting densities than the *TRIDIA* NHS surface

Common Applications: microRNA profiling and analysis, next generation sequencing, DNA methylation studies, SNP analysis, array CGH, ligand-receptor profiling, protein arrays

Reactive Chemistry: N-oxysuccinimide (NHS ester)

Passivating Polymer: Polymer A (non-fouling, ultra-thin hydrogel with added hydrophobicity)

TRIDIA™ EP (Epoxy) Surface

- Binds amine-modified oligos/DNA
- Binds *unmodified* oligos/DNA
- Binds proteins (antibodies, antigens)
- Binds PCR products
- Binds peptides

Common Applications: DNA methylation studies, SNP analysis, array CGH, ligand-receptor profiling, peptide arrays

Reactive Chemistry: Epoxide

Passivating Polymer: Polymer B (non-fouling, ultra-thin hydrogel)

TRIDIA™ NHS Surface

- Binds amine-modified oligos/DNA
- Binds proteins (antibodies, antigens)

Common Applications: microRNA analysis, peptide arrays, next generation sequencing, DNA methylation studies, SNP analysis, array CGH, ligand-receptor profiling

Reactive Chemistry: N-oxysuccinimide (NHS ester)

Passivating Polymer: Polymer B (non-fouling, ultra-thin hydrogel)

We offer an array of coating chemistries to enhance your diagnostic assay, whether it be slides, membranes, microtiter plates, beads, or some other surface. Glass slides, 96-well plates and POC devices/chips are standard evaluation formats.



Quality Management System

The Quality Management System (QMS) at SurModics emphasizes sound design, adherence to manufacturing protocols, testing and inspection of raw materials and finished products, record keeping, complaint responsiveness, corrective action, and self-audits. The process approach involves good business practices and is based on sound quality management principles. SurModics intends to meet customer as well as statutory and legal requirements by maintaining the effectiveness of the QMS as well as continuing to improve processes and prevent nonconforming products and services. SurModics utilizes Total Quality concepts, meaning that the QMS is used by all employees to assure the quality and compliance of their outputs.

ISO Certified

SurModics' quality system is ISO 9001:2008 and ISO 13485: 2003/NS-EN13485:2012 certified. Visit our website at www.surmodics.com to view these certificates, or request copies from our customer service representatives.

Certificates of Analysis / Conformance

SurModics produces lot-specific certificates that provide information about individual lots of all SurModics products. If you require a certificate for a specific production lot sent to you, please contact our customer service department at 952-500-7200.

Lot-to-Lot Consistency

SurModics adheres to strict formulation, quality control, and quality assurance procedures. Our products are consistently monitored for quality from the raw material and in-process stage to final finished product. These procedures ensure that reagents and microarray slides from SurModics demonstrate dependable lot-to-lot consistency in addition to optimal performance.

DIARECT Antigens

Recombinant antigens are produced in Freiburg, Germany by DIARECT AG according to documented procedures. Each lot is subjected to a rigorous series of tests including various biochemical and immunological analyses to assure conformance to strict product specifications before release. DIARECT is ISO 9001: 2000 and ISO 13485: 2003 certified.



Ordering Information

Orders may be placed by telephone, fax, e-mail, or through our website at www.surmodics.com or e-commerce site at <http://shop.surmodics.com/ecommerce>.

For contact information, see back cover.

Standing orders are welcome. Please inquire about our quantity discounts.

All shipments are sent via our standard carrier. Should you prefer to use your own carrier, please supply us with the name of your carrier and your account number.

Customer Service

Contact us at 952-500-7200 to place an order or if you have any questions. One of our friendly customer service representatives will be happy to assist you or, for technical assistance, redirect your call.

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Contact Information:

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IVDtechsupport@surmodics.com

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