

**SURMODICS™** IN VITRO DIAGNOSTIC PRODUCTS

# TMB MICROWELL SUBSTRATES



**AMP UP THE SIGNAL.**  
DIAL DOWN THE NOISE.



## Best-in-class sensitivity, stability and low background in a one-component format

To produce the most robust possible assays, developers need to evaluate many components, including antibody/antigen systems, blocking and stabilization, and enzyme detection substrates. While the choice of antibody or antigen is often the primary consideration, the choice of substrate has a major impact on performance.

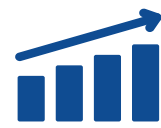
### BioFX™ TMB Substrates: The Choice is Clear

The BioFX™ TMB microwell substrate family outperforms competitors for low background, stability and sensitivity with a variety of kinetic rate substrates. Our one-component formulations provide optimal signal generation, longer shelf lives and the ability to streamline manufacturing of assays.



#### BEST-IN-CLASS KINETIC RANGE

- Surmodics™ IVD offers assay developers a wide range of kinetic rates for their unique assay needs.



#### OUTSTANDING SIGNAL GENERATION

- BioFX™ TMB substrates generate higher signal per femtogram of analyte versus other TMB substrates.



#### RELIABLE DURABILITY

- Surmodics™ IVD's TMB substrates maintain robust formulation stability.



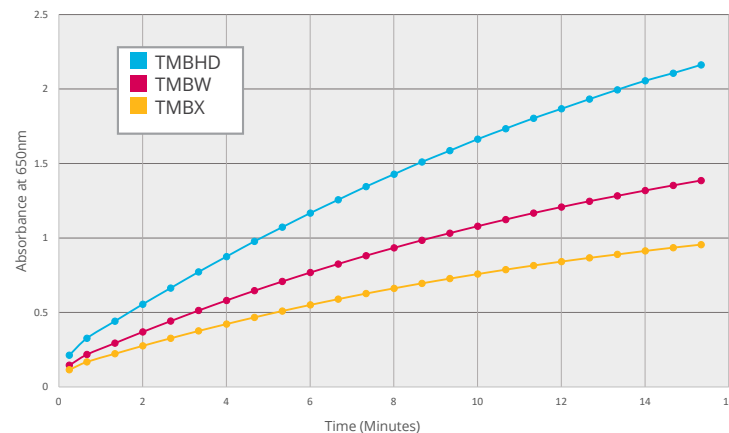
#### QUALITY PARTNER

- ISO 13485:2016 & 9001:2015 certified.
- Expect lot-to-lot consistency, reproducibility, and optimal performance.

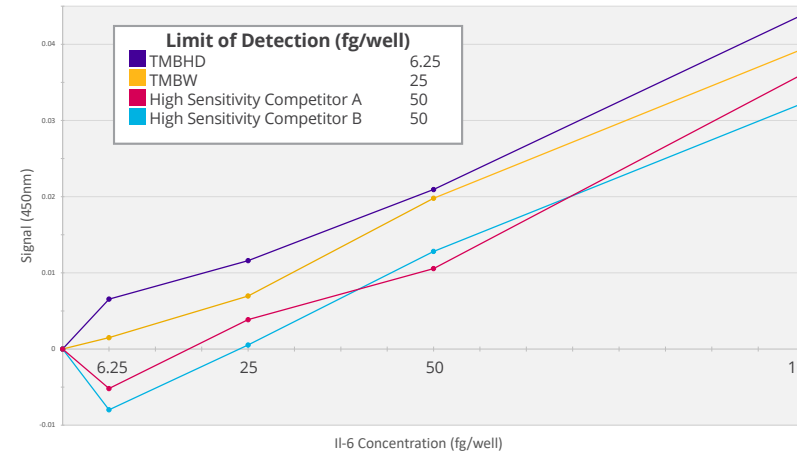
**Best-in-Class Kinetic Range.** BioFX™ TMB Substrates\* offer assay developers a wide range of kinetic rates for their unique assay needs.

TMBHD, TMBW, and TMBX were compared in a kinetic activity assay. 125pg/well of horseradish peroxidase was diluted into 100uL of substrate. The substrate was then monitored at 650 nm over 15 minutes.

\*Please see ordering information section on back page for a listing of all TMB Substrates.



## SENSITIVITY



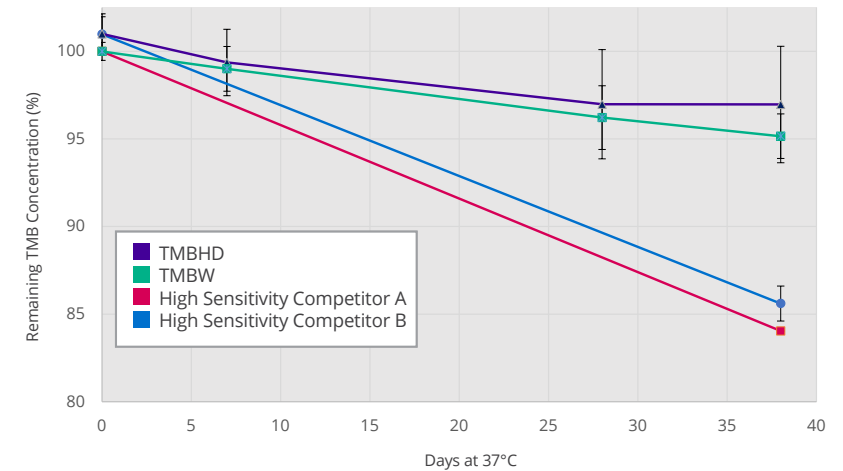
**Outstanding Signal Generation.** For increased sensitivity, BioFX™ TMB substrates generate higher signal per femtogram of analyte versus other TMB substrates.

An IL-6 immunoassay (R&D Systems) was run with TMBHD, TMBW, and other high sensitivity TMB substrates to compare limit of detection and sensitivity. A standard curve was prepared from 100 fg/well to 6.25 fg/well of IL-6. Signal is plotted as the 450nm OD of each well minus the background (zero standard) value. Detection limit was determined by Student's T test ( $p < 0.05$ ) at the lowest tested analyte concentration against the zero standard.

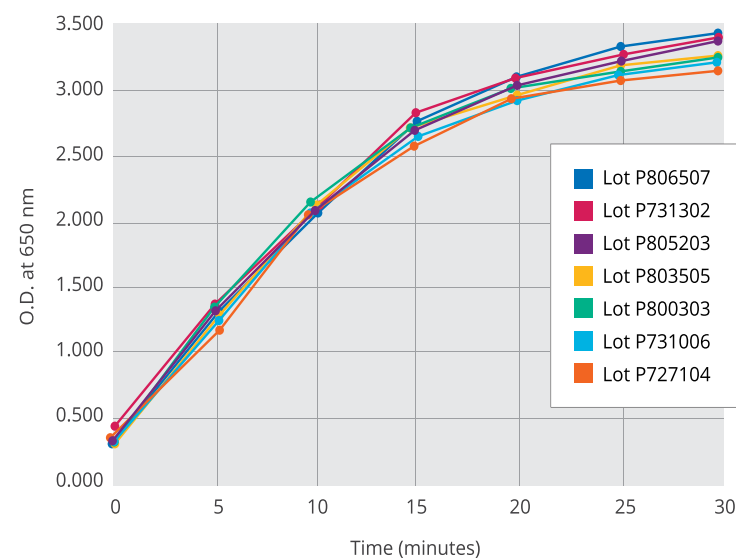
## STABILITY

**Reliable Durability.** BioFX™ One Component HRP Microwell Substrates, TMBW and TMBHD maintain robust formulation stability.

TMBHD, TMBW, and other high sensitivity substrates were stored at 37°C for up to 38 days. During the incubation, substrates were evaluated for remaining 3,3',5,5'-tetramethylbenzidine concentration. The stressed (37°C) data was normalized against the non-stressed (Day 0) control. The remaining soluble TMB concentration (%) was then plotted over time (days).



## CONSISTENT DETECTION



**Unparalleled Consistency & Quality.** BioFX™ TMB substrates are manufactured under conditions that provide negligible variation among production lots. Surmodics is ISO 13485/9001 certified and is committed to delivering quality products.

An HRP standard was added to a rabbit anti-HRP antibody coated microplate, incubated and washed. 7 different lots of TMBW were added to designated microwells and absorbance was read every 5 minutes of the kinetic assay.

## Ordering Information

	Product Code	Product	Storage	Shelf Life	Available Sizes
TMB Substrates	TMBHD	BioFX™ TMB High Definition One Component HRP Microwell Substrate	2-8° C	30 months	100 mL, 1000 mL, Custom Sizes
	TMBS	BioFX™ TMB Super Sensitive One Component HRP Microwell Substrate	2-8° C	30 months	100 mL, 1000 mL, Custom Sizes
	TMBW	BioFX™ TMB One Component HRP Microwell Substrate	2-8° C	48 months	100 mL, 1000 mL, Custom Sizes
	TMSK	BioFX™ TMB Slow Kinetic One Component HRP Microwell Substrate	2-8° C	42 months	100 mL, 1000 mL, Custom Sizes
	TTMB	BioFX™ TMB Super Slow One Component HRP Microwell Substrate	2-8° C	36 months	100 mL, 1000 mL, Custom Sizes
	TMBX	BioFX™ TMB Extended Range HRP Microwell Substrate	2-8° C	30 months	100 mL, 1000 mL, Custom Sizes
	ESPM	BioFX™ TMB Enhanced HRP Membrane Substrate	2-8° C 15-25° C	48 months 24 months	100 mL & 1L
	TMBM	BioFX™ TMB One Component HRP Membrane Substrate	2-8° C 15-25° C	48 months 24 months	100 mL & 1L
Dried Protein Stabilizers & Blockers	SC01	StabilCoat™ Immunoassay Stabilizer	2-8° C or Room Temperature	36 months	50 mL, 1L & 2L
	SC05	5X StabilCoat™ Immunoassay Stabilizer	2-8° C or Room Temperature	24 months	50 mL, 1L & 2L
	SG01	StabilGuard™ Immunoassay Stabilizer	2-8° C or Room Temperature	36 months	50 mL & 1L
	ST01	StabilBlock™ Immunoassay Stabilizer	2-8° C or Room Temperature	36 months	50 mL & 1L
Protein & Conjugate Stabilizers	SZ02	StabilZyme™ HRP Stabilizer	2-8° C or Room Temperature	30 months	50 mL, 1L & 2L
	SZ03	StabilZyme™ SELECT Stabilizer	2-8° C or Room Temperature	30 months	50 mL, 1L & 2L
	SZ04	StabilZyme™ NOBLE Stabilizer	2-8° C or Room Temperature	30 months	50 mL, 1L & 2L
	SZPF	StabilZyme™ Protein-Free Stabilizer	2-8° C or Room Temperature	30 months	50 mL, 1L & 2L
	SA01	StabilZyme™ AP Stabilizer	2-8° C or Room Temperature	30 months	50 mL, 1L & 2L
	SAPF	StabilZyme™ Protein-Free AP Stabilizer	2-8° C or Room Temperature	30 months	50 mL, 1L & 2L
Sample/Assay Diluents	SM01	Assay Diluent (Protein-Free)	2-8° C	24 months	50 mL & 1L
	SM02	MatrixGuard™ Diluent	2-8° C	36 months	50 mL & 1L
Stop Solution	NSTP	450 nm Liquid Nova-Stop Solution for TMB Microwell Substrates	Room Temperature	48 months	100 mL & 1L

FOR ADDITIONAL INFORMATION, PLEASE CONTACT US AT **952-500-7200** OR **ORDERS@SURMODICS.COM** OR **IVDTECHSUPPORT@SURMODICS.COM**



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