

### **Product Specification/Description Sheet**

**ep(HS)TMB-mA**, one component enhanced precipitating TMB Substrate for High Sensitivity microArray (microchip and high resolution blotting) applications, **#epTMB-mA**

#### **Description:**

**ep(HS)TMB-mA** is a precipitating peroxidase substrate containing 3,3',5,5'-tetramethylbenzidine (TMB) and hydrogen peroxide in an aqueous buffer formulation. This product is supplied as a one component ready to use solution. Intact substrate is clear colorless to slightly yellowish in appearance. Positive reaction results in precipitating of insoluble permanent dark blue product at the sites of enzymatic HRP activity (where detecting HRP-labeled anti-analyte is bound). This product is in particular developed for using in High Sensitivity binding (Immuno)Assays designed in microArray/microChip format.

Compared to our p(HS)TMB and other similar high quality competitor's products it will yield on the average 30% to 50% higher signals by the same clean backgrounds.

**ep(HS)TMB-mA** features a capacity of spontaneously recovering to the colorless state: if it has turned bluish on light, it will become again completely colorless after several hours keeping it in dark.

ep(HS)TMB-mA endures at least 4 recovery cycles:

colorless → light → blue → dark → colorless, etc. without drop in activity.

#### **Stability and Storage/Handling:**

**ep(HS)TMB-mA** is stable two years at +2°C/+8°C or one year at ambient room temperature (18°C/28°C).

Both storage regimens are equally applicable depending on desired duration of storage. Within first year, storage in refrigerator will neither improve, nor worsen product performance. +4°C is however a preferred storage regimen providing better safety against possible adverse influence of higher temperatures.

Warm up **ep(HS)TMB-mA** substrate, if stored at +4°C, to assay (room) temperature prior to use.

Avoid prolonged exposure to light, air and extreme temperatures. When re-dispensing, use only clean intact amber Nunc/Nalge(n) or Wheaton HDPE bottles/containers and certified compatible tubing (e.g. Cole-Parmer/Millipore C-Flex tubing), do not re-filter.

#### **Safety and Hazard Identification:**

this product does not contain volatile organic solvents (as dimethylsulfoxide, dimethylformamide, acetone or methanol). It is a completely water based product added with non-toxic proprietary stabilizers and enhancers that are not health-hazardous. This product is non-hazardous, non-toxic, non-carcinogenic, environmentally safe unrestricted product.