

TMB X-tnd[®]

CHROMOGENIC SUBSTRATES

ELISA HRP Substrate

Cat. no. 5280

Product Characteristics

TMB (3, 3', 5, 5'-tetramethylbenzidine) is a chromogenic substrate for Horseradish Peroxidase (HRP). TMB produces a deep blue color during the enzymatic degradation of hydrogen peroxide by HRP, and the addition of a stop solution gives a clear yellow color that absorbs at 450nm.

TMB X-tnd is a ready-to-use, very active and stable aqueous formulation. TMB X-tnd is developed to support assays, which require low detection limits while supporting OD readings of highly positive samples – with no precipitation of the TMB substrate, at up to 5.8 mAbs within 60 minutes. It does not contain NMP (1-methyl-2-pyrrolidone) making it REACH Restricted Substances List Annex XVII compliant, while ensuring maximal safety during use, and minimal waste problems after use.

Composition & Properties

Ready-to-use substrate: Includes substrate buffer and hydrogen peroxide. No other reagents should be added.

Working Procedure

1. The desired amount of substrate is poured into a sealed container and allowed to reach room temperature in the dark before use.
2. A recommended volume of 100 µL substrate solution per microtiter well is added.
3. In kinetic assays, the blue color is read directly at 650 nm. For endpoint assays 100 µL (equal volumes) of 0.35 M sulphuric acid is added and the absorbance is read at 450/620 nm. The yellow solution is stable for at least one hour.

Tips & Tricks

- Dilution of the substrate is not recommended unless a corresponding TMB X-tnd Diluent is acquired. The diluted TMB solution maintains the same stability performance as the undiluted version, and a specific activity can be achieved.
- If reduced intensity is required it is recommended to shorten the time of development or to dilute the conjugate/antibody in the immunoassay further.

Handling & Storage

- Store solution at 2-8 °C in the dark.
- Avoid exposure to light, heat and contamination with metal ions or peroxidase
- Re-dispense only into bottles made of High Density Polyethylene (HDPE), amber color. Dispensing guidelines are available upon request.



Our Immunoassay Solutions are eco-friendly, creating a healthy work environment and preserving natural resources, while helping our customers fulfill significant regulatory requirements. **We call it ECO-TEK.**