

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 450 nm.

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. Time of development is typically 5-30 minutes. Keep the plate in the dark during incubation.
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 environmentally conscious, creating a safer work environment while helping our customers fulfill significant regulatory requirements.

We call it ECO-TEK!

