



## ATR-MED®

### Product Information

#### TMB Liquid Substrate

Catalogue Number: 86254-100mL

#### Product Description

3,3',5,5'-Tetramethylbenzidine (TMB) is a chromogenic substrate suitable for use in ELISA procedures, which utilize horseradish peroxidase (HRP) conjugates.<sup>1-4</sup> This TMB-HRP reaction produces a soluble end-product that is blue in color and can be read spectrophotometrically at 370 or 655 nm. The reaction may be stopped with 2 M H<sub>2</sub>SO<sub>4</sub>, resulting in a yellow solution that is read at 450 nm.

Prior to reaction with peroxidase, the substrate should be a colorless to light bluish-green solution. The substrate system develops a blue reaction product when reacted with peroxidase in microwell applications (such as ELISA assays). For end-point assays, acid can be used to stop the reaction, to yield a yellow end-product. Since this substrate produces a soluble reaction product, it is not recommended for histochemistry or blotting.

#### Highlights

- Single component system
- Exhibits low background levels
- Safe to use- no weighing of hazardous powders
- Save preparation time-use right out of the bottle
- Ultra-low sensitivity
- Minimal lot-to-lot variation.
- Recommended for ELISA procedures
- Ready-to-Use, convenient
- Reproducible Results
- Consistent Performance and Sensitivity
- Stabilized chromogen solution
- For ELISA procedures and peroxidase and pseudo-peroxidase reactions
- Stable up to 24 months
- Non toxic.

#### Applications

- Immunoassays/ELISA
- Immuno-histochemical procedures
- Microbiological procedures
- Tissue and cell culture procedures
- Biochemistry/Clinical chemistry
- Sample dilution

#### Product Procedure

This product is a ready-to-use, one-component substrate for peroxidase and is supplied at the working dilution.

- This reagent should be brought to room temperature (~25 °C) before use.
- Following reaction with peroxidase, a blue reaction product forms that may be read either at 370 nm, or between 620 nm - 655 nm.
- For end-point assays, the reaction can be stopped by the addition of a volume of 1 N or 2 N HCl, or 1 N H<sub>2</sub>SO<sub>4</sub>, equal to the volume of the substrate reaction in the well. The resulting yellow end-product, which is stable for at least one hour, can then be read at 450 nm.
- Dilution of the substrate is not recommended. To reduce the intensity of a reaction, it is suggested that the antibodies or conjugates be diluted.

#### Storage/Stability

This substrate is light-sensitive and should be protected from direct sunlight or UV sources. Store it in a dry place at 2-8 °C.

#### Shipping

The **TMB Liquid Substrate** is shipped at 2-8 °C.



## Precautions and Disclaimer

**This product is for R&D use only, not for use in drug, diagnostic procedures, household, or other uses.** When working with the product, always wear a suitable lab coat and disposable gloves, protective eyewear. For more information, please consult the appropriate material safety data sheets (MSDSs). These are available online as pdf-file or on request ([info@atrmed.com](mailto:info@atrmed.com)). To the extent allowed by law, ATR-MED Inc. will not be liable for special, incidental, indirect, punitive, multiple, or consequential damages in connection with or arising from this document, including your use of it. By use of this product, you accept all the terms and conditions of ATR-MED products. All trademarks are the property ATR-MED unless otherwise specified.

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