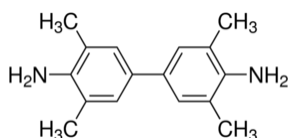


Product Information

3,3',5,5'-Tetramethylbenzidine (TMB) Liquid Substrate System for ELISA

T0440

Product Description



3,3',5,5'-Tetramethylbenzidine (TMB) is a chromogenic substrate suitable for use in ELISA procedures, which utilize horseradish peroxidase (HRP) conjugates.¹⁻⁴ 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 H₂SO₄, resulting in a yellow solution that is read at 450 nm.

This product is supplied as a ready-to-use peroxidase substrate containing TMB in a mildly acidic buffer. 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.

Several references,⁵⁻¹⁸ theses¹⁹⁻²² and dissertations²³⁻³⁰ have cited use of T0440 in their research.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Reagent

This substrate is light-sensitive and should be protected from direct sunlight or UV sources.

Storage/Stability

Store this product at 2-8 °C.

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 H₂SO₄, 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.

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