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Product Information

3,3',5,5'-Tetramethylbenzidine (TMB) Tablets

Product Number **T 5525**
Storage Temperature 2–8 °C

Product Description

3,3',5,5'-Tetramethylbenzidine (TMB) is a chromogenic substrate suitable for use in ELISA procedures, which utilize horseradish peroxidase conjugates. This substrate 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.

Each tablet contains 1 mg of TMB substrate.

The product is available in packages of 50 or 100 tablets. Custom packaging and bulk purchase information available upon request.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

0.05 M Phosphate-Citrate Buffer – Dissolve one Phosphate-Citrate Buffer Tablet (Product No. P 4809) in 100 ml of deionized water with stirring to yield a 0.05 M phosphate-citrate buffer, pH 5.0.

OR

Add 25.7 ml of 0.2 M dibasic sodium phosphate (Product No. S 0876), 24.3 ml of 0.1 M citric acid (Product No. C 7129), and 50 ml deionized water. Adjust pH to 5.0, if necessary.

TMB Substrate Solution – Dissolve one 3,3',5,5'-tetramethylbenzidine tablet in 1 ml of DMSO and add to 9 ml of 0.05 M Phosphate-Citrate Buffer, pH 5.0. Add 2 µl of fresh 30% hydrogen peroxide (Product No. H 1009) per 10 ml of substrate buffer solution, immediately prior to use.

OR

Dissolve one 3,3',5,5'-tetramethylbenzidine tablet in 1 ml of DMSO and add to 9 ml of 0.05 M phosphate-citrate buffer, pH 5.0, containing 0.03% sodium perborate (capsules, Product No. P 4922).

Stop Solution - Reaction may be stopped by the addition of 50 µl of 2 M H₂SO₄ per 200 µl of reaction mixture.

Storage/Stability

Store the TMB tablets at 2–8 °C. Protect from heat, light, and moisture. Allow tablets to reach room temperature prior to use.

References

Bos, E., *et al.*, J. Immunoassay, **2**, 187 (1981).

PCS,MAM 01/05-1

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