

For life science research only.
Not for use in diagnostic procedures.



BM Blue POD Substrate, soluble 3,3'-5,5'-Tetramethylbenzidine (TMB)

 **Version: 18**
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Solution, ready-to-use

Cat. No. 11 484 281 001 100 ml

Store the product at +2 to +8°C.

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1. General Information

1.1. Contents

Vial / bottle	Label	Function / description	Content
1	BM Blue POD substrate, soluble	<ul style="list-style-type: none"> ▪ Clear, slightly yellow solution. ▪ Sufficient for 500 wells in microplates. 	1 bottle, 100 ml

1.2. Storage and Stability

Storage Conditions (Product)

When stored at +2 to +8°C, the product is stable through the expiry date printed on the label.

Vial / bottle	Label	Storage
1	BM Blue POD substrate, soluble	Store at +2 to +8°C. ⚠ Do not store at +15 to +25°C.

1.3. Additional Equipment and Reagent required

For measurement of the color development

- 1 M H₂SO₄

1.4. Application

BM blue POD Substrate serves as a chromogenic substrate for the peroxidase-mediated color development in enzyme immunoassays.

- It is especially suitable for ELISAs (Enzyme Linked Immunosorbent Assays) that require high sensitivity.
- The reagent shows higher sensitivity than o-phenyldiamine (oPD) or ABTS solution, and is classified as non-toxic.

2. How to Use this Product

2.1. Before you Begin

General Considerations

Precautions

- The reagent is highly sensitive to peroxidase activity. Avoid nonspecific contamination during application.
- Do not pipette directly from the bottle. The required amount of reagent should be filled in a clean bottle.

Safety Information

3,3',5,5'-Tetramethylbenzidine is not carcinogenic in the AMES test.

Working Solution

Soluble in water.

2.2. Protocols

Measurement of color development

- 1 The color development is generally completed after 20 minutes at +15 to +25°C.

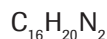
- 2 When observing the color development within this time frame, take measurements at 370 nm against a reference wavelength of 492 nm.
 - i* The color of the reaction product is blue.

- 3 For optimal sensitivity, stop the reaction after approximately 10 to 30 minutes using 1 M H₂SO₄.
 - i* The color will change to yellow.

- 4 Measure the absorbance at 450 nm against a reference wavelength of 690 nm.

2.3. Parameters

Chemical Formula



Molecular Weight

240.35 g/mol

Working Concentration

50 to 250 µl/well; must be optimized.

3. Supplementary Information

3.1. Conventions

To make information consistent and easier to read, the following text conventions and symbols are used in this document to highlight important information:

Text convention and symbols

i *Information Note: Additional information about the current topic or procedure.*

⚠ Important Note: Information critical to the success of the current procedure or use of the product.

① ② ③ etc. Stages in a process that usually occur in the order listed.

1 2 3 etc. Steps in a procedure that must be performed in the order listed.

* (Asterisk) The Asterisk denotes a product available from Roche Diagnostics.

3.2. Changes to previous version

Layout changes.

Editorial changes.

3.3. Trademarks

ABTS is a trademark of Roche.

All other product names and trademarks are the property of their respective owners.

3.4. License Disclaimer

For patent license limitations for individual products please refer to:

List of biochemical reagent products.

3.5. Regulatory Disclaimer

For life science research only. Not for use in diagnostic procedures.

3.6. Safety Data Sheet

Please follow the instructions in the Safety Data Sheet (SDS).

3.7. Contact and Support

To ask questions, solve problems, suggest enhancements or report new applications, please visit our **Online Technical Support Site.**

To call, write, fax, or email us, visit **sigma-aldrich.com**, and select your home country. Country-specific contact information will be displayed.

