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Not for use in diagnostic procedures.



ABTS Tablets and Buffer Sets

 **Version: 16**

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Cat. No. 11 204 521 001	ABTS Tablets 5 mg
Cat. No. 11 204 530 001	ABTS Buffer 125 ml
Cat. No. 11 112 597 001	ABTS Buffer 16.7 g for 1 l
Cat. No. 11 112 422 001	ABTS Tablets 50 mg

Store the products at +2 to +8°C.

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1. General Information

1.1. Contents

Label	Function / description	Catalog number	Content
ABTS Tablets	Each tablet contains 50 mg ABTS substrate and 60 mg vehicle substances.	11 112 422 001	1 bottle, 20 tablets
ABTS Buffer	Contains sodium perborate, citric acid, and disodium hydrogen phosphate.	11 112 597 001	1 bottle, 16.7 g
ABTS Tablets	Each tablet contains 5 mg ABTS substrate and 60 mg vehicle substances.	11 204 521 001	1 bottle, 20 tablets
Buffer for ABTS, 1x conc.	<ul style="list-style-type: none"> ▪ Ready-to-use solution. ▪ Contains sodium perborate, citric acid, and disodium hydrogen phosphate. 	11 204 530 001	1 bottle, 125 ml

1.2. Storage and Stability

Storage Conditions (Product)

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

Label	Catalog number	Storage
ABTS Tablets	11 112 422 001	Store dry at +2 to +8°C. ⚠ Keep protected from light.
ABTS Buffer	11 112 597 001	Store at +2 to +8°C. ⚠ Avoid contamination by microorganisms.
ABTS Tablets	11 204 521 001	Store dry at +2 to +8°C. ⚠ Keep protected from light.
Buffer for ABTS, 1x conc.	11 204 530 001	Store at +2 to +8°C. ⚠ Avoid contamination by microorganisms.

1.3. Additional Equipment and Reagent required

For preparation of ABTS Buffer solutions

- Double-distilled water

For ELISA

- Plate shaker

1.4. Application

Use the ABTS substrate solution for enzyme immunoassays with horseradish peroxidase as marker enzyme.

i Due to the high sensitivity of the reaction, automatic readers often display "over" after several minutes.

2. How to Use this Product

2.1. Before you Begin

Safety Information

Laboratory procedures

- Handle all samples as if potentially infectious, using safe laboratory procedures. As the sensitivity and titer of potential pathogens in the sample material varies, the operator must optimize pathogen inactivation by the Lysis / Binding Buffer or take appropriate measures, according to local safety regulations.
- Do not eat, drink or smoke in the laboratory work area.
- Do not pipette by mouth.
- Wear protective disposable gloves, laboratory coats and eye protection, when handling samples and kit reagents.
- Wash hands thoroughly after handling samples and reagents.

Waste handling

- Discard unused reagents and waste in accordance with country, federal, state, and local regulations.
- Safety Data Sheets (SDS) are available online on dialog.roche.com, or upon request from the local Roche office.

Working Solution

5 mg ABTS in 5 ml (Cat. No. 11 204 521 001 and 11 204 530 001)

Solution	Catalog Number	Composition/Preparation	Storage and Stability
ABTS substrate solution (5 mg in 5 ml)	11 204 521 001	Dissolve 1 ABTS Tablet (5 mg) in 5 ml of the Buffer for ABTS, 1x conc. (ready-to-use solution). The solution has a light-green color. In microplates, the solution is colorless. $A_{405\text{ nm}}/1\text{ cm}$ should be <0.16. ⚠ Heavy metal ions or traces of peroxidase can produce a dark-green ABTS solution. These solutions are not suitable for the assay.	Store for 3 months at +2 to +8°C. ⚠ Keep protected from light.

50 mg ABTS in 50 ml (Cat. No. 11 112 422 001 and 11 112 597 001)

Solution	Catalog Number	Composition/Preparation	Storage and Stability
ABTS Buffer solution	11 112 597 001	Dissolve the contents of one bottle of ABTS Buffer in 100 ml double-distilled water.	Store in aliquots at -15 to -25°C.
ABTS Buffer working solution		Dilute 1 aliquot of ABTS Buffer solution in a ratio of 1:10 with double-distilled water.	Prepare fresh.
ABTS substrate solution (50 mg in 50 ml)	11 112 422 001	Dissolve 1 ABTS Tablet (50 mg) in 50 ml of the ABTS Buffer working solution. The solution has a light green color. In microplates, the solution is colorless. $A_{405\text{ nm}}/1\text{ cm}$ should be <0.16. ⚠ Heavy metal ions or traces of peroxidase can produce a dark-green ABTS solution. These solutions are not suitable for the assay.	Store for 3 months at +2 to +8°C. ⚠ Keep protected from light.

2.2. Protocols

ELISA

After the addition of the immunoreagent and washing steps, follow the protocol below.

i See section, **Working Solution**, for information on preparing solutions.

① Carefully remove washing solution.

② Pipette 100 to 200 μ l ABTS substrate solution into each well.

⚠ **Prewarm solution to +15 to +25°C.**

③ For maximum sensitivity, incubate for 1 hour at +22 to +37°C on a plate shaker at 250 rpm until the color development is sufficient for photometric analysis, alternatively, shake at 500 rpm for 30 minutes.
– Avoid extended incubation periods since after approximately 1 hour, the color intensity of the dye tends to decrease slightly instead of increasing.

④ Measure at 405 nm against ABTS substrate solution as a blank; reference wavelength approximately 492 nm.

i *The green color of the ABTS substrate can be easily detected by eye; for numeric values, a photometric measurement is required.*

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

 *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.**

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

   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.

Update to include new safety Information to ensure handling according controlled conditions.

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.

