Product Information

2,2'-Azino-bis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt tablet

10 mg substrate per tablet

A9941

Product Description

CAS Number: 30931-67-0 [2,2'-Azino-bis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt component]

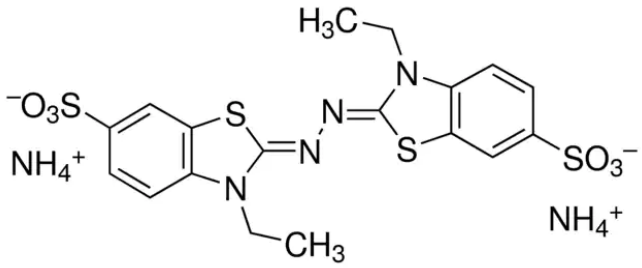
Molecular Formula: $C_{18}H_{24}N_6O_6S_4$ [2,2'-Azino-bis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt component]

Molecular Weight: 548.68 [2,2'-Azino-bis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt component]

Synonym: AzBTS-$(NH_4)_2$, ABTS™-$(NH_4)_2$, Diammonium 2,2'-azino-bis(3-ethylbenzothiazoline-6-sulfonate)

Storage Temperature: Room temperature

Structure [2,2'-Azino-bis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt component]:



2,2'-Azino-bis(3-Ethylbenzthiazoline-6-Sulfonic Acid), also known as AzBTS, is a chromogen that is suitable for use in ELISA procedures which utilize horseradish peroxidase (HRP) conjugates.[1-3] The reaction of the ABTS substrate with HRP produces a soluble end product that is green in color and can be read spectrophotometrically at 405 nm.[4] Several theses[5,6] and dissertations[7-13] cite use of this A9941 tablet product in their protocols.

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

Tablet Properties

- Substrate Content: 10 mg
- Appearance: Green, round tablet, 5/32 in. diameter
- Tablet Weight: 35 mg (range 31.5-38.5 mg)
- Solubility (*): Clear, colorless to a clear, light-green solution
- Dissolution Time (*): Not more than 5.0 minutes
- pH: 5.0 (range 4.2-5.8) in 100 mL of deionized water
- Activity: 100% (range 90-110%)
- Packaging: 50 or 100 tablets per box, individually foil wrapped for ease of use, storage, and safety

(*) One tablet is dissolved in 100 mL of deionized water.

Preparation Instructions

Option 1

- Dissolve 1 tablet in 100 mL of 0.05 M phosphate-citrate buffer, pH 5.0 (such as Cat. No. P4809).
- Add 25 µL of fresh 30% hydrogen peroxide (H_2O_2, such as Cat. No. H1009) immediately prior to use.

Option 2

- Dissolve 1 tablet in 100 mL of 0.05 M phosphate-citrate buffer, pH 5.0, containing 0.03% sodium perborate (such as Cat. No. P4922).

Phosphate-Citrate Buffer Preparation

To prepare 0.05 M phosphate-citrate buffer, pH 5.0:

1. Add 25.7 mL of 0.2 M dibasic sodium phosphate (such as Cat. Nos. S0876 or 71643) to 24.3 mL of 0.1 M citric acid (such as Cat. Nos. C7129 or C0706).
2. Adjust the buffer volume to 100 mL with deionized water.
3. Adjust the pH to 5.0, if necessary.

References

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6. Tardón, Daniela Irlanda Castro, "Integration between healthy and microbiome in Holstein cows immediately after calving". Universidade de São Paulo, M.Sc. thesis, p. 47 (2020).
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