

Product Information

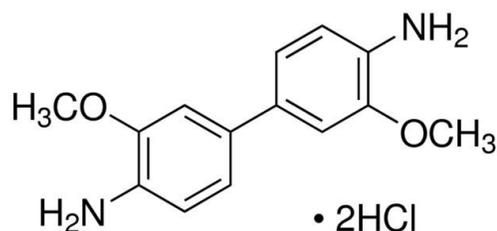
o-Dianisidine dihydrochloride

Tablet, 10 mg substrate per tablet

D9154

Product Description

Storage Temperature: 2-8 °C

Synonyms (*o*-Dianisidine dihydrochloride component): 3,3'-Dimethoxybenzidine dihydrochloride, Fast Blue BFormula: C₁₄H₁₆N₂O₂ • 2HCl (*o*-Dianisidine dihydrochloride component)Formula Weight: 317.21 (*o*-Dianisidine dihydrochloride component)Structure (*o*-Dianisidine dihydrochloride):

o-Dianisidine is a chromogen for use in ELISA procedures which utilize horseradish peroxidase (HRP) conjugates.¹ *o*-Dianisidine produces a soluble end product that is yellow-orange in color and can be read spectrophotometrically at 405 nm. The reaction mechanism and products of the oxidation reaction of HRP upon *o*-dianisidine have been investigated.^{2,3}

This product has been used in studies of the Rab5 GTPase,⁴ SerpinB1 knockout mice,⁵ and activity assays for HRP,^{6,7} methionine aminopeptidase,⁸ and for myeloperoxidase.^{9,10} Several theses¹¹⁻¹³ and dissertations^{14,15} have cited use of D9154 in their research protocols.

Each *o*-Dianisidine dihydrochloride tablet is 5/32 in. diameter, and contains 10 mg of substrate.

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.

Storage/Stability

It is recommended to store the *o*-Dianisidine dihydrochloride tablets at 2-8 °C, protected from heat, light, and moisture. Allow tablets to reach room temperature before use.

Preparation Instructions

1. Prepare the substrate solution by adding one tablet to 60 mL of 50 mM phosphate-citrate buffer, pH 5.0.
2. Add 12 µL of fresh 30% hydrogen peroxide (H₂O₂, such as Cat. No. H1009) immediately before use.

Phosphate-Citrate Buffer Preparation

To prepare 50 mM phosphate-citrate buffer, pH 5.0:

1. Mix 25.7 mL of 200 mM dibasic sodium phosphate (such as Cat. Nos. S0876 or 71643) and 24.3 mL of 100 mM citric acid (such as Cat. Nos. C7129 or C0706).
2. Bring the total volume to 100 mL with water.
3. Adjust the pH to 5.0, if necessary.

Alternatively, use phosphate-citrate buffer capsules containing sodium perborate (such as Cat. No. P4922). Sodium perborate is a hydrogen peroxide substitute. Therefore, it is not necessary to add H₂O₂ to such a substrate solution that contains perborate.

References

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