

## Product Information

### **o-Dianisidine dihydrochloride**

tablet, 10 mg substrate per tablet

Catalog Number **D9154**

Storage Temperature 2–8 °C

Synonyms: 3,3'-Dimethoxybenzidine dihydrochloride,  
Fast Blue B

Formula: C<sub>14</sub>H<sub>16</sub>N<sub>2</sub>O<sub>2</sub> • 2HCl

Formula Weight: 317.21

#### **Product Description**

o-Dianisidine is a chromogen for use in ELISA procedures which utilize horseradish peroxidase conjugates.<sup>1</sup> This substrate produces a soluble end product that is yellow-orange in color and can be read spectrophotometrically at 405 nm.

This product has been used in studies of the Rab5 GTPase,<sup>2</sup> SerpinB1 knockout mice,<sup>3</sup> and activity assays for horseradish peroxidase,<sup>4,5</sup> methionine aminopeptidase,<sup>6</sup> and for myeloperoxidase.<sup>7,8</sup>

Each tablet is 5/32 inch in diameter, and contains 10 mg of substrate. Custom packaging and bulk purchase information are available upon request.

#### **Precautions and Disclaimer**

This product is 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.

#### **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 (e.g., Catalog Number H1009) immediately before to use.

#### **Buffer Preparation:**

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

1. Mix 25.7 mL of 200 mM dibasic sodium phosphate (e.g., Catalog Number S0876) and 24.3 mL of 100 mM citric acid (e.g., Catalog Number C7129).
2. Bring the total volume to 100 mL with water.
3. Adjust the pH to 5.0, if necessary.

#### **Or:**

Use phosphate-citrate buffer capsules containing sodium perborate (e.g. Catalog Number P4922). Sodium perborate is a hydrogen peroxide substitute. Therefore, it is not necessary to add H<sub>2</sub>O<sub>2</sub> to the substrate solution.

#### **Storage/Stability**

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

#### **References**

1. Avrameas, S., and Guilbert, B., *Biochimie*, **54(7)**, 837-842 (1972).
2. Felberbaum-Corti, M. *et al.*, *Meth. Enzymol.*, **403**, 367-381 (2005).
3. Benarafa, C., *Meth. Enzymol.*, **499**, 136-148 (2011).
4. Hill, K.J. *et al.*, *Biochim. Biophys. Acta – Biomembranes*, **1326(1)**, 37-46 (1997).
5. Kaszuba, M., and Jones, M.N., *Biochim. Biophys. Acta – Biomembranes*, **1419(2)**, 221-228 (1999).
6. Frottin, F. *et al.*, *Mol. Cell. Proteomics*, **5(12)**, 2336-2349 (2006).
7. Karpurapu, M. *et al.*, *Blood*, **118(19)**, 5255-5266 (2011).
8. de Jong, N.W.M. *et al.*, *J. Biol. Chem.*, **293(7)**, 2260-2271 (2018).

RBG,GCY,MAM 11/18-1