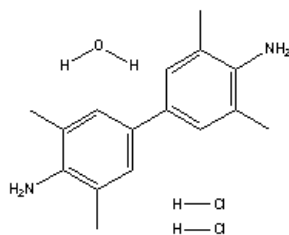


Catalog Number: 152116

## 3,3',5,5'-Tetramethylbenzidine dihydrochloride dihydrate

### Structure:



**Molecular Formula:** C<sub>16</sub>H<sub>20</sub>N<sub>2</sub> · 2HCl · 2H<sub>2</sub>O

**Molecular Weight:** 349.3

**CAS # :** 64285-73-0

**Synonym:** TMB · diHCl

**Physical Appearance:** White to off white powder

**Solubility:** Soluble in methanol (1 mg/ml-clear, colorless solution); moderately soluble in water

**Description:** TMB is a noncarcinogenic analog of benzidine. It is typically used as a peroxidase substrate suitable for use in ELISA procedures. The substrate produces a soluble end product that is pale blue in color and can be read spectrophotometrically at 370 or 650 nm. The TMB reaction can be stopped with 2 M H<sub>2</sub>SO<sub>4</sub> (resulting in a yellow color) and read at 450 nm.

### References:

1. Bos, E.S., et al., *J. Immunoassay*, **v. 2**, 187 (1981).
2. Holland, V.R., et al., *Tetrahedron*, **v. 30**, 3299 (1974).
3. Leim, H.H., et al., *Anal. Biochem.*, **v. 98**, 388 (1979)