

DAB tetrahydrochloride dihydrate

Chemical Properties

CAS No. : 167684-17-5

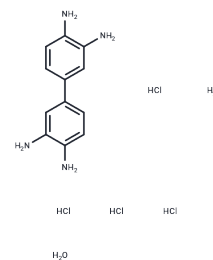
Formula: C₁₂H₂₂Cl₄N₄O₂

Molecular Weight: 396.14

Keep away from direct sunlight

Storage: Store at -20°C

Actual storage temperature shall be subject to the COA.



Biological Description

Description	DAB tetrahydrochloride dihydrate is widely employed as a staining agent in histochemical (HC) and immunohistochemical (IHC) applications, where it plays an important role in peroxisomal staining procedures and in the detection of mitochondrial cytochrome c oxidase activity.
Targets(IC50)	Others
In vitro	<p>DAB tetrahydrochloride dihydrate, as a dye, is converted into an insoluble polymer upon oxidation, forming a dark brown precipitate in the reaction area, thereby enabling the visualization of target molecules. In immunohistochemistry, DAB tetrahydrochloride dihydrate serves as a substrate for peroxidase conjugated to primary or secondary antibodies. In histochemical staining Methods, DAB tetrahydrochloride dihydrate can be used to stain the activity of peroxisomes and mitochondrial cytochrome c oxidase (COX) in organelles [1].</p> <p>Cytochrome c oxidase (COX) histochemical staining protocol [1] (This protocol is for reference only and can be adjusted according to specific experimental requirements):</p> <ol style="list-style-type: none"> 1. Incubate the sections with ~50 µL COX staining solution (0.1 M NaPO₄, 4 mM DAB tetrahydrochloride dihydrate, 100 µM cytochrome c, 2 mg/mL catalase) at 37°C for 45 minutes. 2. Wash three times with PBS, 5 minutes each, followed by sequential treatment with 75% and 95% ethanol for 1 minute each, and finally dehydrate with 100% ethanol for 10 minutes. 3. After staining, the samples must be completely dried before sampling. <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5244 mL	12.6218 mL	25.2436 mL
5 mM	0.5049 mL	2.5244 mL	5.0487 mL
10 mM	0.2524 mL	1.2622 mL	2.5244 mL
50 mM	0.0505 mL	0.2524 mL	0.5049 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Dölle C, et al. 3,3'-Diaminobenzidine staining interferes with PCR-based DNA analysis. Sci Rep. 2018 Jan 19;8(1):1272.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481