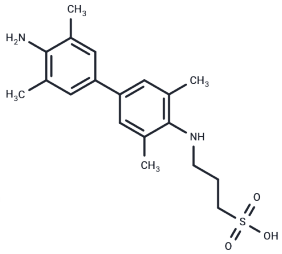
Data Sheet (Cat.No.T7109)

TargetMol

TMB-PS

Chemical Properties



CAS No. : 102062-36-2

Formula: C19H26N2O3S

Molecular Weight: 362.49

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	TMB-PS (TMBZ-PS) is a chromogenic reagent for the detection of hydrogen peroxide e.g. in the enzymatic analysis of body fluids.
Targets(IC50)	Others
Cell Research	Instructions I. Solution preparation 1. Stock solution: Dissolve TMB-PS in deionized water or an appropriate buffer, usually 1-10 mM stock solution. 2. Working solution: Dilute the stock solution to a working concentration, usually 0.1-1 mM, according to the experimental requirements. To enhance the reaction rate and sensitivity, it is recommended to use a solution containing hydrogen peroxide as the substrate solution. II. Operation steps 1. Enzyme-linked immunosorbent assay (ELISA): (1) Add specific antibodies or antigens to the wells of the ELISA plate and incubate. (2) Add an enzyme marker that binds to the target antibody or antigen. (3) Wash the plate with an appropriate buffer. (4) Add TMB-PS substrate solution (usually containing hydrogen peroxide) and incubate in the dark for a certain period of time (5-30 minutes) until a blue or purple reaction product is observed. (5) Stop reaction: Add an acidic solution (such as 2 M sulfuric acid or 1 M phosphoric acid) to terminate the reaction. The reactant changes from blue to yellow, which facilitates the reading of optical density. 2. Immunohistochemical staining: (1) Add TMB-PS substrate solution to tissue sections or cell cultures for staining. (2) Wash off excess dye with PBS and observe under a microscope. 3. Calibration and control: (1) Control group: Set up a group without substrate solution as a control to ensure the specificity of the substrate reaction. (2) Standard curve: A standard curve between optical density and concentration can be established using samples of known concentration for quantitative analysis. Notes: (1) Photosensitivity: TMB-PS is light-sensitive and should be avoided from prolonged

Cell Research	exposure to strong light. (2) Storage conditions: TMB-PS should be stored in a dry, cool place, away from high temperatures and strong light, usually at -20°C. (3) pH range: TMB-PS performs best in an acidic environment of pH 3-5, but is also stable over a wider pH range. (4) Solubility: TMB-PS has good solubility in water, but it should be ensured that there are no undissolved solid particles. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMSO: 35 mg/mL (96.55 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7587 mL	13.7935 mL	27.587 mL
5 mM	0.5517 mL	2.7587 mL	5.5174 mL
10 mM	0.2759 mL	1.3793 mL	2.7587 mL
50 mM	0.0552 mL	0.2759 mL	0.5517 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

Frey A,et al. A stable and highly sensitive 3,3',5,5'-tetramethylbenzidine-based substrate reagent for enzyme-linked immunosorbent assays. J Immunol Methods. 2000 Jan 13;233(1-2):47-56.
Frey A, et al. A stable and highly sensitive 3,3',5,5'-tetramethylbenzidine-based substrate reagent for enzyme-linked immunosorbent assays. J Immunol Methods. 2000 Jan 13;233(1-2):47-56.
Frey A,et al. A stable and highly sensitive 3,3',5,5'-tetramethylbenzidine-based substrate reagent for enzyme-linked immunosorbent assays. J Immunol Methods. 2000 Jan 13;233(1-2):47-56.

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