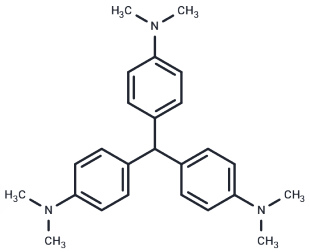
Data Sheet (Cat.No.T1343)

TargetMol

Leucocrystal Violet

Chemical Properties



CAS No. : 603-48-5

Formula: C25H31N3

Molecular Weight: 373.53

Appearance: no data available

Storage: keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Leucocrystal Violet is a triphenylmethane dye.
Targets(IC50)	Others
Cell Research	Instructions I. Reagent preparation: Dissolve it in an appropriate solvent (such as water or buffer solution). Depending on the experimental requirements, the common concentration range is 0.1-1 mM. II. Operation steps 1. Sample preparation: The sample can be water, soil, air or biological fluids. If the sample contains impurities or other metal ions, it may need to be pretreated or diluted to reduce interference. 2. Reaction steps: 1) Take a certain volume of sample solution (such as environmental water samples, biological fluids, etc.) and add Leucocrystal Violet solution. 2) Usually, the reaction is carried out under acidic conditions, and the pH value of the solution is adjusted to the optimal range of the reaction using an acid of appropriate concentration (such as hydrochloric acid, acetic acid, etc.). 3) The sample reacts with Leucocrystal Violet at room temperature for a certain time (usually 10-30 minutes) to form a purple complex. 3. Measurement: 1) Use a spectrophotometer to measure the absorbance (OD value) at an appropriate wavelength (usually 590 nm). The concentration of the purple complex generated after the reaction of antimony and LCV is proportional to the absorbance. 2) According to the standard curve, calculate the concentration of antimony in the sample. 4. Data analysis: 1) According to the absorbance value of the sample, the concentration of antimony is estimated through the standard curve. 2) Blank control experiments and comparisons between samples may be required to ensure the accuracy of the results. Notes: 1. Interfering substances: Other metal ions (such as lead, chromium, etc.) in the sample may react with Leucocrystal Violet and affect the results. Therefore, appropriate

	separation or suppression of interference from other metals may be required before the experiment. 2. pH control: The pH value of the reaction has an important influence on sensitivity and stability. The pH value of the reaction system should be ensured to be within the optimal range. 3. Stability: The purple complex after the reaction should be measured as soon as possible, because the stability of the complex is poor under light or high temperature and may degrade.

Solubility Information

Solubility	DMSO: 3.74 mg/ml (10 mM),Sonication is recommended. H2O: < 0.1 mg/mL (insoluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6772 mL	13.3858 mL	26.7716 mL
5 mM	0.5354 mL	2.6772 mL	5.3543 mL
10 mM	0.2677 mL	1.3386 mL	2.6772 mL
50 mM	0.0535 mL	0.2677 mL	0.5354 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.

Reference

Khan MI, et al. Point of care testing (POCT) of cholesterol in blood serum via a moving reaction boundary electrophoresis titration chip. Anal Methods. 2023 Jun 22;15(24):2971-2978.
Lee W, Hong S. Photoluminescence of blood by acidic hydrogen peroxide-A preliminary test. J Forensic Sci. 2022 Jan;67(1):161-168.
Wu X,et al. Preparation of magnetic mesoporous metal-phenolic coordination spheres for extraction of crystal violet and leuco-metabolites in fish. J Chromatogr A. 2021 Jan 11;1636:461776.