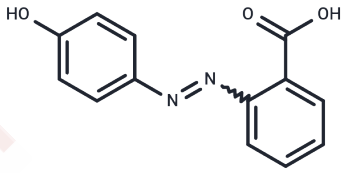
Data Sheet (Cat.No.T77556)

TargetMol

2-(4-Hydroxyphenylazo)benzoicacid

Chemical Properties



CAS No. : 1634-82-8

Formula: C13H10N2O3

Molecular Weight: 242.23

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	2-(4-Hydroxyphenylazo)benzoicacid is a spectrophotometric probe that shows changes in absorption spectra upon binding to proteins and binds to bovine serum proteins.
Targets(IC50)	Others
In vitro	Instructions 1. Storage solution preparation: When preparing the stock solution, deionized water or an appropriate amount of ethanol can be used, and the concentration range is usually 1-10 mM. 2. Operation steps: Binding experiment: 1. Binding of protein and probe: 1) Dissolve the target protein (such as bovine serum albumin, BSA) in an appropriate buffer (such as PBS buffer at pH 7.4). 2) Add 2-(4-Hydroxyphenylazo)benzoic Acid in a certain proportion to ensure that its final concentration is suitable for absorption spectrum measurement (such as 10-50 μM). 2. Incubation conditions: Incubate the mixed system at room temperature or 37°C for 10-30 minutes to ensure that the probe is fully bound to the protein. 3. Absorption spectrum detection: Use a spectrophotometer to scan the absorption spectrum changes in the range of 350-500 nm. After the probe binds to the protein, its characteristic absorption peak (usually around 400 nm) will change significantly. 4. Data analysis: Compare the absorption spectra of the free probe after binding to the protein to determine the binding kinetic parameters. Use titration experiments (such as gradually increasing the probe or protein concentration) to draw binding curves and calculate the binding constant. Notes: 1) The probe is sensitive to pH and a suitable buffer should be used to stabilize the experimental conditions. 2) Prevent light from causing compound degradation or protein denaturation. 3) Before the measurement, ensure that the solution is free of bubbles and particles to avoid interfering with spectral detection.

In vitro	The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	Ethanol: 18 mg/mL (74.31 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1283 mL	20.6415 mL	41.2831 mL
5 mM	0.8257 mL	4.1283 mL	8.2566 mL
10 mM	0.4128 mL	2.0642 mL	4.1283 mL
50 mM	0.0826 mL	0.4128 mL	0.8257 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

Habumugisha T, et al. Evaluation and optimization of the influence of silver cluster ions on the MALDI-TOF-MS analysis of polystyrene nanoplastic polymers. Anal Methods. 2022 Feb 17;14(7):763-772.

Lallana E,et al. End-group rearrangements in poly(propylene sulfide) matrix-assisted laser desorption/ionization time-of-flight analysis. Experimental evidence and possible mechanisms. Rapid Commun Mass Spectrom. 2012 Sep 30;26(18):2158-64.

Galesio M, et al. Comparative study of matrices for their use in the rapid screening of anabolic steroids by matrix-assisted laser desorption/ionisation time-of-flight mass spectrometry. Rapid Commun Mass Spectrom. 2009 Jun;23 (12):1783-91.