SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

Bromocresol green

Cat. No.: HY-W040144

CAS No.: 76-60-8

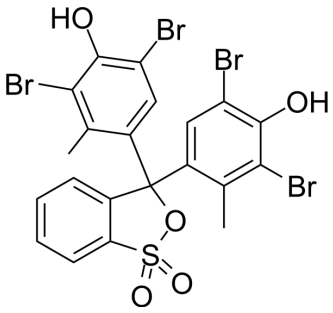
Molecular Formula: $C_{21}H_{14}Br_4O_5S$

Molecular Weight: 698.01

Target: Fluorescent Dye

Pathway: Others

Storage: RT, stored under nitrogen



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (143.26 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.4326 mL	7.1632 mL	14.3264 mL
	5 mM	0.2865 mL	1.4326 mL	2.8653 mL
	10 mM	0.1433 mL	0.7163 mL	1.4326 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (3.58 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Bromocresol green is a pH-sensitive triphenylmethane dye commonly used for the determination of protein and albumin in serum. Bromocresol green is a bio-based dye with a yellow-green to blue-green color. Bromocresol green turns yellow (λ max=435 nm, protonated form) when placed in acidic solution (e.g. pH=4.15), and turns blue in basic solution (λmax=615 nm, deprotonated form). Bromocresol green is widely used as a pH indicator in the field of biochemical analysis. In addition, Bromocresol green is also used to detect the concentration of molecules such as creatinine, and to judge the viability of cells [1][2][3][4].

In Vitro

Determination of Bromocresol Green Binding with Human Serum Albumin[1]
(1) Reagent preparation: Prepare a 0.05 M phosphate buffer or any other needed buffer, adding NaCl if necessary to maintain an ionic strength of at least 0.03. Dissolve Bromocresol Green in water and adjust the pH with NaOH to ensure it forms a divalent anionic form, creating a 0.04% stock solution.
(2) Sample preparation: Prepare a solution of human serum albumin. After determining the nitrogen content using the Kjeldahl method, dilute it with the required buffer to create a solution with an appropriate concentration of albumin. Depending on the experimental design, prepare buffers of different pH values and different concentrations of Bromocresol

Green solution.
(3) Binding experiment: Under set pH conditions (e.g., pH 6.95), add a certain amount of Bromocresol Green to a solution containing a fixed concentration of human serum albumin. Measure the changes in absorbance of the solution at specific wavelengths using a spectrophotometer, and record the data. Pay special attention to changes at 615 nm, as this is where the maximum absorption difference between the free form and the albumin-bound state of Bromocresol Green occurs. Separate the free and bound indicators using ultrafiltration and measure the absorbance again.
(4) Data analysis: Analyze the absorbance data to determine the binding constant and the number of binding sites. Use the Scatchard plot analysis method to estimate the number of binding sites and their respective binding constants. Compare the experimental data with theoretical curves to evaluate the effect of different pH values on binding.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Delanghe S, et al. Binding of bromocresol green and bromocresol purple to albumin in hemodialysis patients. Clin Chem Lab Med. 2018 Feb 23;56(3):436-440.

[2]. Jurmanović S, et al. Organically modified silicate thin films doped with colourimetric pH indicators methyl red and bromocresol green as pH responsive sol–gel hybrid materials[J]. Thin Solid Films, 2010, 518(8): 2234-2240.

[3]. Chaiyo S, et al. A novel paper-based colorimetry device for the determination of the albumin to creatinine ratio. Analyst. 2018 Nov 5;143(22):5453-5460.

[4]. Hou H, et al. Single-cell pH imaging and detection for pH profiling and label-free rapid identification of cancer-cells. Sci Rep. 2017 May 11;7(1):1759.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA