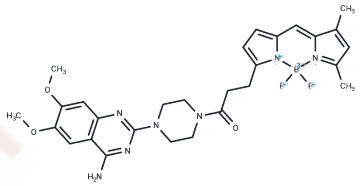
Data Sheet (Cat.No.T63980)

TargetMol

BODIPY FL prazosin

Chemical Properties



CAS No. : 175799-93-6

Formula: C28H32BF2N7O3

Molecular Weight: 563.41

Storage: 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	BODIPY FL prazosin is a fluorescent α1-adrenergic antagonist with binding affinities of Ki: 14.5 nM for α1a-AR and Ki: 43.3 nM for α1b-AR, used to study subcellular localization differences in α1-adrenoceptor subtypes.
Targets(IC50)	Adrenergic Receptor
In vitro	BODIPY FL prazosin (10 nM; 30 min at room temperature in 100 μl; COS-7 cells) shows Affinity of various α1-AR ligands with K i values of 14.5, 43.3 nM for α1a-AR and α1b-AR, respectively [1]. BODIPY FL prazosin (100 nM, 30 min) can be used as molecular probe for the Visualization of the non-adrenoceptor binding site of α1-adrenergic drugs in erythroleukemia cells [3].
Cell Research	Instructions for use I. Solution preparation 1. Mother solution dissolution and preparation: BODIPY FL prazosin is recommended to be dissolved in anhydrous DMSO. The concentration can be adjusted according to the experimental requirements, usually between 10-50 μM. 2. Preparation of working solution: It can be diluted to the required concentration with buffer or culture medium according to the experimental needs. Usually, a certain preliminary experiment can be performed before use to optimize the final concentration. II. Operation steps 1. Labeling reaction: 1) Add BODIPY FL prazosin solution (1-10uM) to the cell culture system. Generally, it is cultured at 37°C for a certain period of time (30 minutes to 1 hour) to ensure that the fluorescent label binds to the α1-AR on the cell surface. 2) During the labeling process, it should be ensured that the labeling agent does not have a toxic effect on the cells. It is recommended to use appropriate control experiments. 2. Cleaning and analysis: 1) After labeling, use an appropriate washing buffer to remove unbound fluorescent ligands to reduce background signals. 2) When performing flow cytometry or confocal microscopy analysis, ensure that the excitation light source and filter settings are correct to accurately collect fluorescence signals in the 485/535 nm wavelength range. 3. Analysis:

Cell Research	1) Use flow cytometry for quantitative analysis and evaluate the expression level of α1-AR by intracellular fluorescence intensity. 2) When using confocal microscopy, fluorescently labeled cells can be observed at high resolution to study the distribution and localization of receptor subtypes. Notes: 1. BODIPY FL prazosin should be stored at -20°C to avoid repeated freezing and thawing. 2. The solution used in the experiment should be as fresh as possible and avoid long-term exposure to strong light to maintain its fluorescence stability. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7749 mL	8.8745 mL	17.7491 mL
5 mM	0.355 mL	1.7749 mL	3.5498 mL
10 mM	0.1775 mL	0.8875 mL	1.7749 mL
50 mM	0.0355 mL	0.1775 mL	0.355 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

Sun A, Wang J. Functional Evaluation of P-gp and Bcrp at the Murine Blood-Cerebrospinal Fluid Barrier. Pharm Res. 2023 Nov;40(11):2667-2675.
Levy ES, et al. Reversible inhibition of efflux transporters by hydrogel microdevices. Eur J Pharm Biopharm. 2019 Dec;145:76-84.
Fuchs R, et al. The cytotoxicity of the α1-adrenoceptor antagonist prazosin is linked to an endocytotic mechanism equivalent to transport-P. Toxicology. 2015 Dec 2;338:17-29.