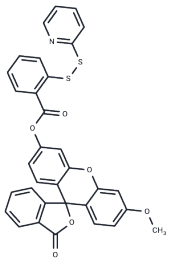
Data Sheet (Cat.No.T36511)

TargetMol

WSP-1

Chemical Properties



CAS No. : 1352750-34-5

Formula: C33H21NO6S2

Molecular Weight: 591.65

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	WSP-1 is a selective 2-pyridyl disulfide fluorescent probe for hydrogen sulfide detection and bioimaging.
Targets(IC50)	Others
Cell Research	1. Hydrogen sulfide detection Experimental steps: 1. Prepare WSP-1 solution: WSP-1 is usually dissolved in an appropriate solvent (such as DMSO) and then mixed with cell culture or biological samples. Its concentration is usually between 1-5 μM (can be adjusted according to experimental requirements). 2. Incubate the cell/tissue sample: Add WSP-1 solution to live cells or tissues, usually 30-60 minutes, allowing the probe to enter the cells and react with hydrogen sulfide. 3. Fluorescence imaging: Use a fluorescence microscope or imaging system to monitor the fluorescence signal. WSP-1 emits fluorescence at a specific wavelength in the presence of hydrogen sulfide, usually within the green fluorescence range. 4. Data analysis: According to the fluorescence intensity, the concentration of hydrogen sulfide in cells or tissues can be quantitatively analyzed. 2. Application in cell and animal models Experimental steps: 1. Preparation of cell/animal model: Prepare appropriate cell lines or animal models, inject or add WSP-1 probes through cell culture. 2. Monitoring and imaging: Use a fluorescence microscope or multiphoton microscope to capture fluorescence images at appropriate time points to analyze the dynamic changes of hydrogen sulfide. 3. Results analysis: The concentration of hydrogen sulfide and its relationship with pathological status were evaluated through fluorescence images and quantitative analysis. 3. Research on hydrogen sulfide: Experimental steps: 1. Drug intervention or mutation model: Change hydrogen sulfide levels in cells or animals by adding synthesizers or inhibitors of hydrogen sulfide (such as inhibitors of certain hydrogen sulfide-generating enzymes). 2. Fluorescence monitoring: Monitor the changes in the fluorescence signal generated by WSP-1 to evaluate the concentration changes of hydrogen sulfide under different

Cell Research	experimental conditions. 3. Results analysis: Fluorescence signals are used to quantitatively analyze the relationship between hydrogen sulfide and related physiological or pathological events (such as heart disease, neurodegenerative diseases, etc.). Notes: 1. Solubility and stability: WSP-1 has good solubility, but when used, it should avoid direct contact with strong reducing agents or high concentrations of hydrogen sulfide to avoid affecting its performance. 2. Background interference: Background fluorescence in certain cells or tissues may interfere with measurements. Imaging conditions should be optimized and controlled experiments should be conducted when used. 3. Cell permeability: WSP-1 has a high permeability and can directly enter the cells and react with endogenous hydrogen sulfide, but for some cell types, it may be necessary to optimize experimental conditions. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMF: 20 mg/mL (33.8 mM),Sonication is recommended. DMSO: 8.53 mg/mL (14.42 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6902 mL	8.4509 mL	16.9019 mL
5 mM	0.338 mL	1.6902 mL	3.3804 mL
10 mM	0.169 mL	0.8451 mL	1.6902 mL
50 mM	0.0338 mL	0.169 mL	0.338 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.