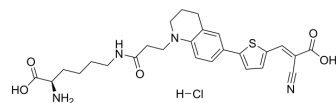


Rf470DL

Cat. No.:	HY-D1689
CAS No.:	2758364-03-1
Molecular Formula:	C ₂₆ H ₃₁ ClN ₄ O ₅ S
Molecular Weight:	547.07
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Rf470DL is a rotor-fluorogenic D-amino acid (RfDAA). Rf470DL can be used for labeling bacteria (Ex=470 nm, Em=640 nm) ^[1] .
In Vitro	<p>Rf470DL can realize ash-free imaging of bacterial cell walls^[1].</p> <p>Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs)^[1].</p> <ol style="list-style-type: none"> RfDAA/FDAA stock solutions are prepared in DMSO at a concentration of 100 mM and stored at -20°C before use. <ol style="list-style-type: none"> For long-pulse labeling of <i>B. subtilis</i> and <i>E. coli</i>, dilute the exponential phase cultures with fresh LB broth containing 1 mM Rf470DL to OD₆₀₀~0.05, and incubate for 1 h. Image immediately using a Nikon Ti-E inverted microscopy system without washing and fixation. For short-pulse labeling of <i>S. venezuelae</i>, Rf470DL stock solution is added directly to exponential phase cultures to a final concentration of 0.5 mM, followed by incubating at 30 °C with shaking for 15 min. <ol style="list-style-type: none"> Image immediately using a Nikon Ti-E inverted microscopy system without washing and fixation. <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. Yen-Pang Hsu, et al. Fluorogenic D-amino acids enable real-time monitoring of peptidoglycan biosynthesis and high-throughput transpeptidation assays. *Nat Chem.* 2019 Apr;11(4):335-341.

Caution: Product has not been fully validated for medical applications. For research use only.

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