



APPLICATION NOTE

E181VDJ-002

Control of Reduction Reaction of an Aggregation Induced Emission (AIE) Fluorophore

Abstract

Aggregation Induced Emission (AIE) Fluorophores represent a promising approach towards cancer theranostics. In the cited work, a mitochondria targeted AIE fluorophore was synthesized and tested regarding its anticancer effect. A modelled enzyme free activation of the AIE fluorophore could be accomplished using sodium dithionite. The successful conversion could be proven using the HPLC method described in this application note.

Keywords

- Pharmacological products
- Anticancer Drugs
- Aggregation Induced Emission Fluorophores
- AIE

Compound information

Classification	Compound name
AIE Fluorophore	

Structures: please refer to Figure S14 of the Supplementary Information of the scientific publication (see References)

Chromatographic conditions

Column	VDSpher® 100 C18-E
Particle Size, Length × inner diameter	5 µm, 250 × 4.6mm
Order number	N2546E181VDJ
Separation mode descriptions	analytical, reversed phase
Mobile Phase	A: Water (0.5 vol% TFA) A: Acetonitrile (0.5 vol% TFA)
Elution conditions	Gradient 0-15 min: 70% to 100% B 15-25 min: 100% B
Flow rate	1 ml/min
Injection	
Column temperature	
Pressure	
HPLC system	YL9100 Young Lin HPLC system Detection: UV, wavelengths: 254 nm, 340 nm
Sample and sample preparation	The AIE fluorophore was reduced by sodium dithionite.

Chromatograms

Please refer to Figure S14 of the Supplementary Information of the scientific publication (see References)

Origin

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References

“Mitochondria-Targeted Aggregation Induced Emission Theranostics: Crucial Importance of In Situ Activation”

Weon Sup Shin, Min Goo Lee, Peter Verwilt, Joung Hae Lee, Sung Gil Chi, Jong Seung Kim
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