

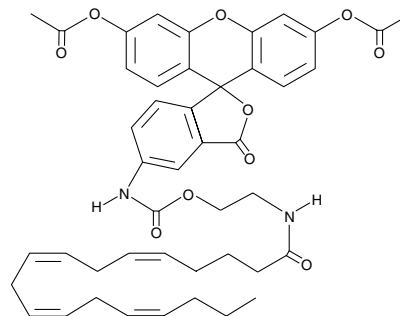
Product Information



CAY10455

Item No. 10005072

CAS Registry No.: 290374-09-3
Formal Name: [3',6'-bis(acetyloxy)-3-oxospiro [isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl]-2-[[1-oxo-5Z,8Z,11Z,14Z-eicosatetraenyl]amino]ethyl ester carbamic acid
Synonym: SKM 4-45-1
MF: C₄₇H₅₂N₂O₁₀
FW: 804.9
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate



Laboratory Procedures

For long term storage, we suggest that CAY10455 be stored as supplied at -20°C. It should be stable for at least one year.

CAY10455 is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of CAY10455 in these solvents is approximately 5 mg/ml.

CAY10455 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of CAY10455 should be diluted with the aqueous buffer of choice. CAY10455 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

The cellular trafficking of arachidonoyl ethanolamide (anandamide; AEA) by neurons is dominated by transport and/or hydrolysis by fatty acyl amide hydrolase (FAAH) within the neurons.¹ CAY10455 is a labeled analog of AEA that is non-fluorescent when outside the cell. Upon transport into the cell interior, it is cleaved by esterases to give a bright fluorescence at 530 nm. CAY10455 uptake into C6 glioma cells is inhibited by AEA and its analogs, and conversely CAY10455 inhibits the uptake of tritiated AEA, indicating that they compete for the AEA transporter.²

References

1. Deutsch, D.G., Glaser, S.T., Howell, J.M., *et al.* The cellular uptake of anandamide is coupled to its breakdown by fatty-acid amide hydrolase. *J. Biol. Chem.* **276**(10), 6967-6973 (2001).
2. Muthian, S., Nithipatikom, K., Campbell, W.B., *et al.* Synthesis and characterization of a fluorescent substrate for the N-arachidonoyl ethanolamine (anandamide) transmembrane carrier. *J. Pharmacol. Exp. Ther.* **293**, 289-295 (2000).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10005072

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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