

2',3'-cGAMP-iFluor 488 conjugate

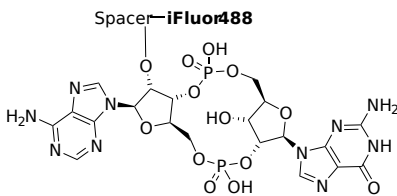
Catalog Number: 20320

Unit Size: 100 ug

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid orange
Molecular Weight	1834.96
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	491 nm
Emission Wavelength	516 nm

Applications

iFluor® 488-labeled cGAMP provides an excellent fluorescent probe for developing fluorescence-based assays and tests for detecting cGAMP or monitoring its activity. iFluor® 488 conjugates are significantly brighter than fluorescein conjugates and are much more photostable. Additionally, the fluorescence of iFluor® 488 is not affected by pH (4-10). 2',3'-cGAMP has gained significant attention in recent years due to its potential as a therapeutic target for diseases such as cancer and viral infections. It has been shown to activate the immune system and enhance the efficacy of immune checkpoint inhibitors, which are a type of cancer immunotherapy. 2',3'-cGAMP (cyclic GMP-AMP) is a cyclic dinucleotide second messenger molecule that plays a critical role in the innate immune system. It is synthesized by the enzyme cGAS (cyclic GMP-AMP synthase) in response to cytosolic DNA that has been released from damaged or infected cells. Once synthesized, 2',3'-cGAMP binds to the adaptor protein STING (stimulator of interferon genes) and triggers downstream signaling pathways that result in the production of type I interferons and other cytokines, leading to an immune response against the invading pathogen.