

## 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 recieving
Chemical Properties	
Appearance	Solid
Molecular Weight	1834.96
Soluble In	DMSO
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.