3'3'-cGAMP ELISA Kit
Item No. 502130

Developed by Cayman scientists in conjunction with the nucleotide experts at Biolog Life Science Institute, this competitive ELISA can be used to quantify levels of the bacterial cyclic dinucleotide (CDN) second messenger 3'3'-cyclic GMP-AMP (3'3'-cGAMP) in biological samples. **This new assay kit is sensitive, specific, and independently validated by LC-MS/MS to ensure accurate, reliable results.**

Assay Kit At-A-Glance

| Sensitivity	
Assay Range	78-10,000 pM
Mid-point (50% B/B_0)	818 pM
Sensitivity (80% B/B_0)	210 pM
LLOD	26 pM
Sample types	Bacterial and mammalian cell lysates and cell supernatants
Run time	Under 3 hours
Readout	Colorimetric (Abs = 450 nm)
LC-MS/MS correlation	LC-MS/MS of transformed *E. coli* samples shows excellent correlation with values measured by the 3'3'-cGAMP ELISA Kit
Samples	24 samples in triplicate or 36 samples in duplicate

Powered by

BioLog ▶ - LIFE SCIENCE INSTITUTE -

Read our News article **Why Cayman Assay Kits?** to learn about the advantages of our kits and how we define assay sensitivity.

Unrivaled Sensitivity & Specificity

Cayman's 3'3'-cGAMP ELISA Kit uses a highly specific 3'3'-cGAMP monoclonal antibody for excellent sensitivity and low cross reactivity to related or structurally similar molecules.
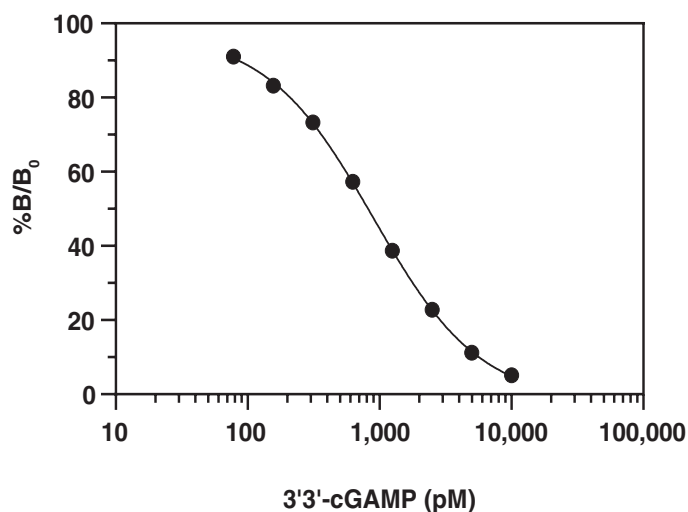

Compound	Cross Reactivity
3'3'-cGAMP	100%
3'2'-cGAMP	0.018%
2'3'-cGAMP	0.006%
Cyclic di-GMP	0.004%
2'2'-cGAMP	0.002%
pApG	0.002%
ATP	<0.001%
GTP	<0.001%
AMP	<0.001%
GMP	<0.001%
cAMP	<0.001%
cGMP	<0.001%
Cyclic di-AMP	<0.001%

Independently Validated by LC-MS/MS

Transformed *E. coli* samples were generated and measured by LC-MS/MS in the Department of Microbiology & Molecular Genetics by the Waters Lab at Michigan State University and compared to values measured by Cayman's 3'3'-cGAMP ELISA Kit, showing excellent correlation.

For additional information on the performance of this kit, including spike and recovery and linearity data, please refer to the kit booklet (PDF) or view the scientific poster Development and Validation of a Novel 3'3'-cGAMP Monoclonal ELISA.
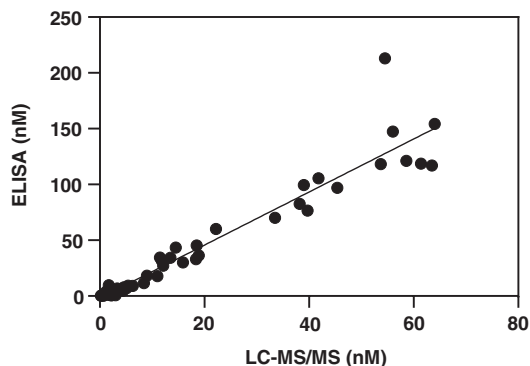
LC-MS/MS Correlation of 34 independent transformed *E. coli* samples

These data will appear in Wilburn, K.M., Blaylock, J., Metcalfe, K., *et al.* Development of 3'3'-cyclic GMP-AMP enzyme linked immunoassay reveals phage infection reduced DncV activity. *Isr. J. Chem.* (2022).

Related Products & Additional Resources

Our 3'3'-cGAMP ELISA Kit is also complemented by our full line of bacterial and mammalian CDN and cGAS-STING signaling products.

CDNs, Metabolites, & Negative Controls

Item No.	Product Name
22419	2'2'-cGAMP (sodium salt)
19887	2'3'-cGAMP (sodium salt)
17966	3'3'-cGAMP (sodium salt)
17753	Cyclic di-AMP (sodium salt)
17144	Cyclic di-GMP (sodium salt)
22485	Cyclic di-IMP (sodium salt)
33890	Cyclic di-UMP (sodium salt)
33886	5'-pApA (sodium salt)
33889	5'-pGpG (sodium salt)
36245	$^{13}C_{20}$,$^{15}N_{10}$-Cyclic di-GMP (sodium salt)

For additional related products, download these brochures:
· Bacterial Signaling & Sensing
· STING Signaling Pathway

Additional Reading
· Bacterial Cyclic Dinucleotides Regulate Biofilm Formation
· Cyclic Dinucleotides: Ubiquitous Cellular Messengers
· Vaccine Development for Emerging Infectious Disease

ELISAs to Quantify Bacterial and Mammalian CDNs

Cylic di-GMP ELISA Kit - Item No. 501780
· Measure cyclic di-GMP in bacterial cell lysates
· Assay range: 4.6-10,000 pg/ml
· LLOD: 5.3 pg/ml (0.008 pmol/ml)

Cylic di-AMP ELISA Kit - Item No. 501960
· Measure cyclic di-AMP in bacterial cell lysates
· Assay range: 15.6-2,000 pg/ml
· LLOD: 20.7 pg/ml (0.03 pmol/ml)

2'3'-cGAMP ELISA Kit - Item No. 501700
· Measure 2'3'-cGAMP in mammalian cell lysates, plasma, serum, and tissue samples
· Assay range: 9 pM-148.3 nM
· LLOD: 14.2 pM (9.6 pg/ml)

For more information about our CDN ELISA kits, visit their respective product pages or download our Cyclic Dinucleotide ELISA Kits brochure.