

Direct cGMP ELISA kit

Most sensitive (0.025 pmol/ml) colorimetric kit for intracellular cGMP quantification.

This is a colorimetric competitive immunoassay kit for the quantitation of intracellular cGMP in cells or tissues lysed in 0.1 M HCl, which is used to stop endogenous phosphodiesterase activity and stabilize the released cyclic GMP. The 0.1M HCl treated samples are then analyzed directly in a microtiter plate without extraction, drying and reconstitution. Sensitivity is increased by acetylation (reagents included). Absorbance is read at 405 nm. The ready-to-use liquid color-coded reagents provided reduce error.

Cyclic GMP (cGMP), which has been shown to be present at levels typically 10-100 fold lower than cAMP, is formed by the action of the enzyme guanylate cyclase on GTP. Some hormones, such as Acetylcholine, Insulin, and Oxytocin, as well as certain other chemicals like Serotonin and Histamine cause an increase in cGMP levels. Stimulators of guanylate cyclase such as the vasodilators nitroprusside, nitroglycerin, sodium nitrate, and nitric oxide (NO) also stimulate cGMP levels.

Citations: 60

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Ordering Information

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ADI-901-014

5x96 wells

Manuals, SDS & CofA

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- Highly sensitive ELISA with an optional acetylation protocol which increases sensitivity 10-fold (0.025 pmol/ml)
- Trusted and widely cited in peer-reviewed publications
- Higher throughput format with results for up to 39 samples in duplicate
- Simple, efficient, and well-established sample handling protocols
- Reliable and consistent lot-to-lot performance
- Save with bulk kit package!

Handling & Storage

Use/Stability Store all components at +4°C, except standard and conjugate at -20°C.

Shipping Blue Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name cyclic GMP

Application Colorimetric detection, ELISA

Application Notes For the quantitative determination of cGMP in cell lysates and tissue from any species. Cited sample types include cerebral spinal fluid and microdialysate.

Assay Time 3 hours

Compatibility This product is compatible with the [Absorbance 96 Plate Reader](#).

Contents GxR Microtiter plate, Conjugate, Antibody, 0.1M HCl, Neutralizing reagent, Wash buffer concentrate, Standard, pNpp Substrate, Stop solution, Acetic anhydride, Triethylamine

Crossreactivity cyclic GMP (100%) and <0.001% GMP, GTP, cyclic AMP, AMP, ATP, cyclic UMP, CTP

Sensitivity Non-acetylated format: 0.604 pmol/ml
Acetylated 2-hour format: 0.059 pmol/ml
Acetylated overnight format: 0.025 pmol/ml
Range: (non-acetylated): 0.8 – 500 pmol/ml
Range: (acetylated): 0.08 – 50 pmol/ml

Species Reactivity Species independent

Wavelength 405 nm



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