Direct cAMP ELISA kit

Most sensitive (0.006 pmol/ml) colorimetric kit for intracellular cAMP quantification.

This is a colorimetric competitive immunoassay kit for the quantitative determination of intracellular cAMP in cells or tissues lysed in 0.1 M HCl, which is used to stop endogenous phosphodiesterase activity and stabilize the released cyclic AMP. The 0.1M HCl treated samples are then analyzed directly in a microtiter plate without extraction, drying and reconstitution. Sensitivity is increased >10-fold by acetylation (reagents included). Absorbance is read at 405 nm. The large signal-to-background ratio offers superior sensitivity compared to competitors. This kit lets you easily assess adenylyl cyclase activation by GPCRs.

Cyclic AMP (cAMP) is one of the most important “second messengers” involved as a modulator of physiological processes. A number of hormones are known to activate cAMP through the action of the enzyme Adenylate cyclase which converts ATP to cAMP. cAMP has been shown to be involved in the cardiovascular and nervous systems, immune mechanisms, cell growth and differentiation, and general metabolism.

Citations: 164 View Online »

Ordering Information

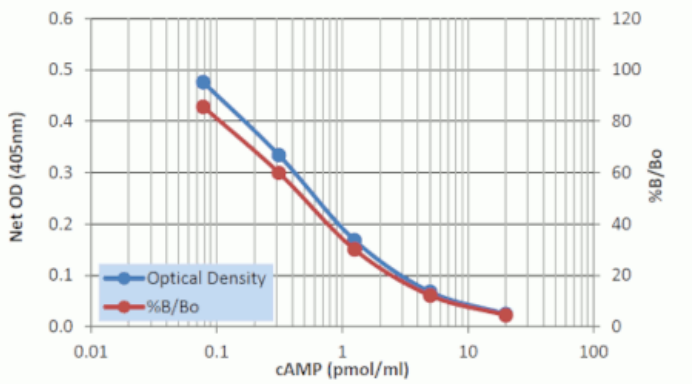
Order Online »

ADI-900-066A	96 wells
ADI-900-066A-384	384 wells

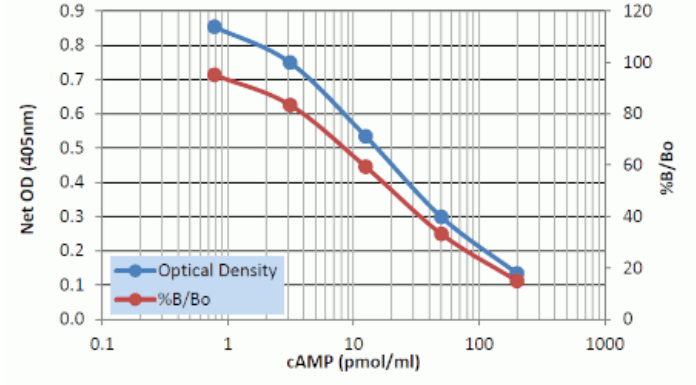
Manuals, SDS & CofA

View Online »

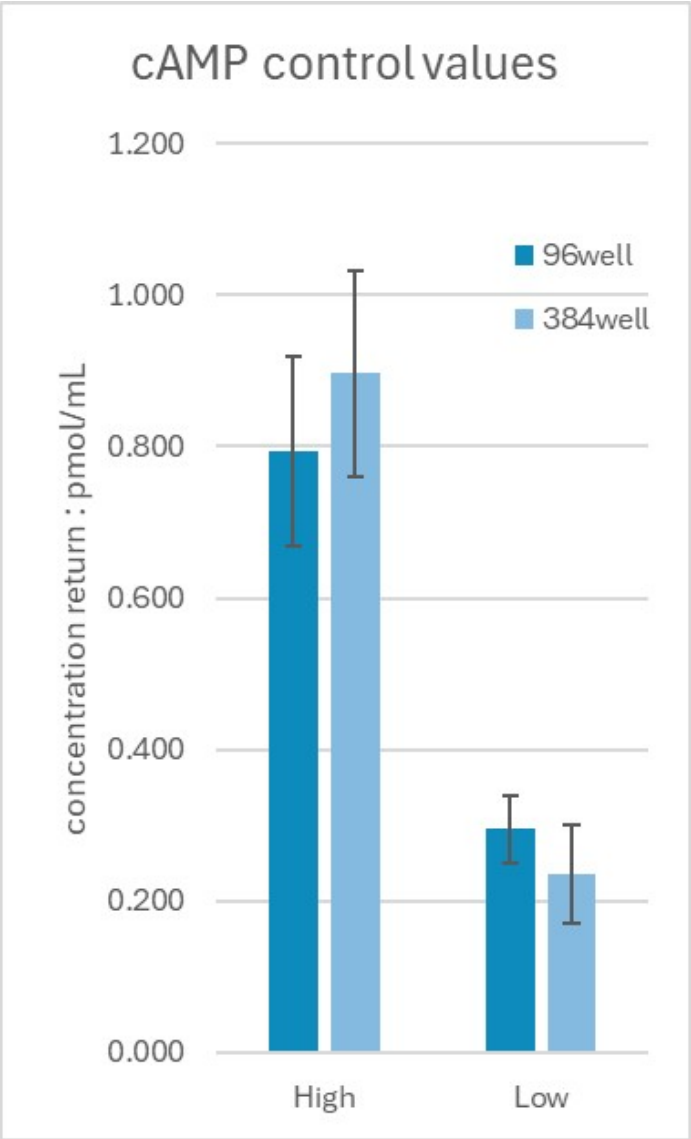
- Highly sensitive with an optional acetylation protocol which increases sensitivity >10-fold
- High throughput format, results in just 3 hours
- Now available in 384-well format (ADI-900-066A-384) - same validated chemistry, designed for high-throughput screening (HTS) and GPCR drug discovery applications
- Flexible assay, species independent
- Easy-to-use pre-coated plate and liquid color-coded reagents reduce errors
- Efficient and well-established sample handling protocols
- Widely cited in peer-reviewed publications



Typical standard curve used to calculate cAMP concentrations for Acetylated assay format.



Typical standard curve used to calculate cAMP concentrations for Non-acetylated assay format.



Acetylated cAMP control values compared on the 96 well and 384 well formats.

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 AMP
Application	Colorimetric detection, ELISA
Application Notes	For the quantitative determination of cAMP in cell lysates and tissue from any species. Cited sample types include tissue culture.
Assay Time	3 hours
Compatibility	This product is compatible with all conventional absorbance plate readers including the **Absorbance 96 Plate Reader**.
Contents	GxR IgG Microtiter plate (98-well or 384-well), Conjugate, Antibody, 0.1M HCl, Neutralizing reagent, Wash buffer concentrate, Standard, pNpp Substrate, Stop solution, Acetic anhydride, Triethylamine
Crossreactivity	cyclic AMP (100%)AMP, ATP, cyclic GMP, GMP, GTP, cyclic UMP, CTP (<0.001%)
Sensitivity	Non-acetylated: 1.18 pmol/ml (96-well) and 2.01 pmol/ml (384-well); assay range 0.78 – 200 pmol/ml Acetylated: 0.006 pmol/ml (96-well) and 0.092 pmol/ml (384-well); assay range 0.078 – 20 pmol/ml
Species Reactivity	Species independent
Wavelength	405 nm

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