cAMP complete ELISA kit

Most sensitive (0.006 pmol/ml and 0.027 pmol/ml) and complete colorimetric kit for intra- and extracellular cAMP quantification.

This is a colorimetric competitive immunoassay kit for the quantitative determination of extracellular cAMP diluted in buffer or intracellular cAMP in cells or tissues lysed in 0.1M HCl. 0.1M HCl 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: 47 View Online »

Ordering Information

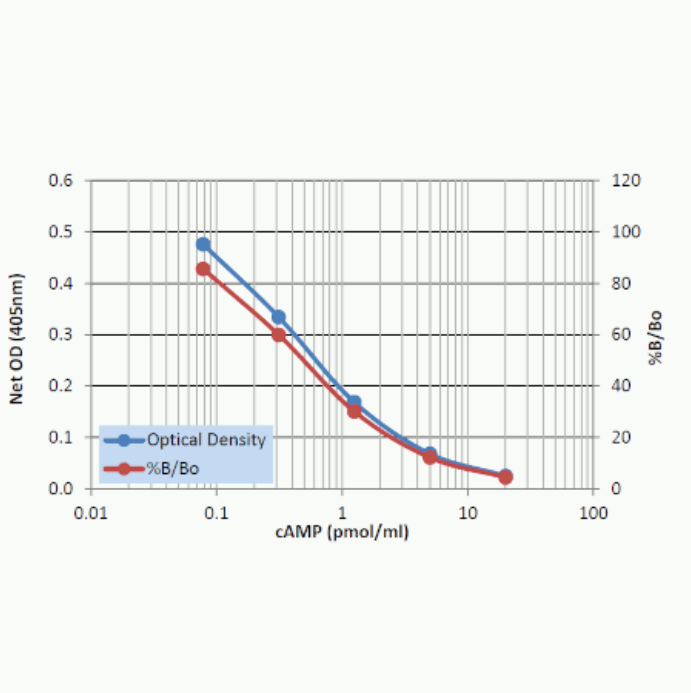
Order Online »

ADI-900-163A	96 wells

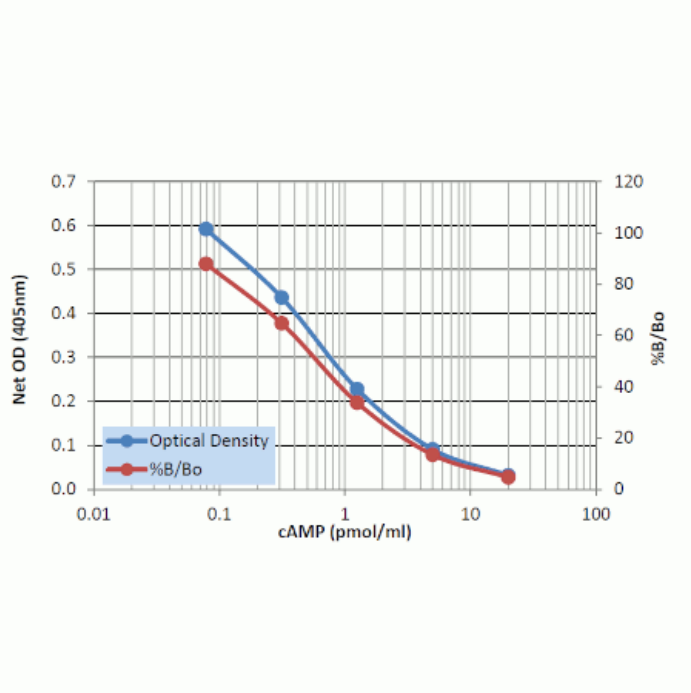
Manuals, SDS & CofA

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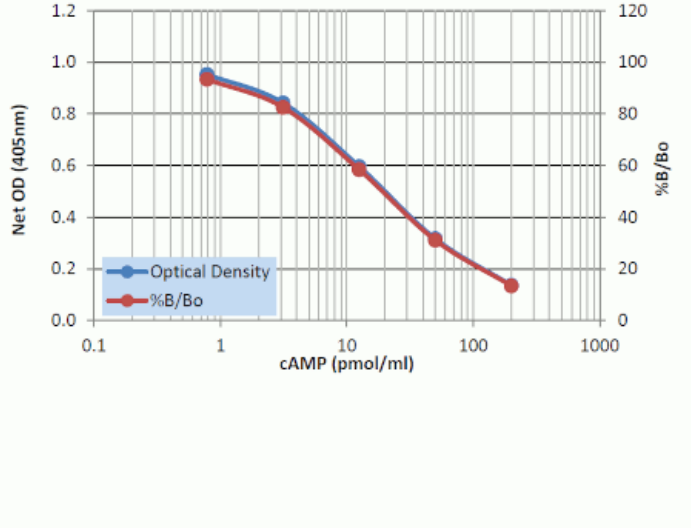
- Versatile and convenient kit used to assay both intracellular and extracellular cAMP
- Highy sensitive measurement of cAMP with an optional acetylation protocol increasing sensitivity >10-fold (0.006 pmol/ml and 0.027 pmol/ml) for intra- and extracellular cAMP, respectively
- Simple, efficient and well-established sample handling protocols
- Widely cited in peer-reviewed publications
- Higher throughput format with results in 3 hours for up to 39 samples in duplicate
- Reliable and consistent lot-to-lot performance



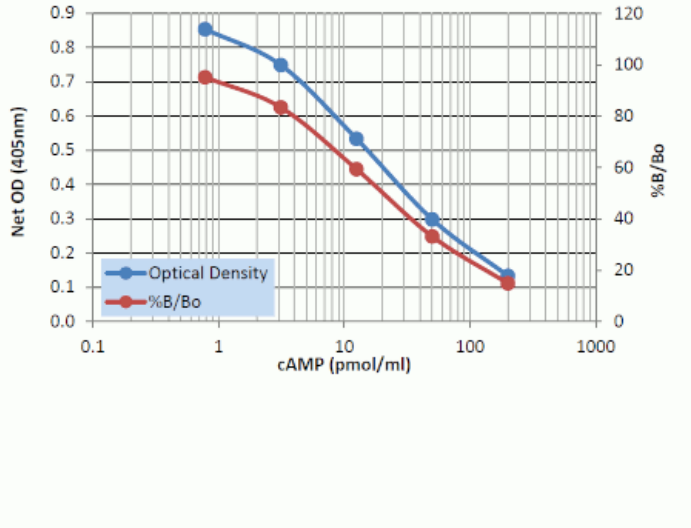
Typical standard curve used to calculate cAMP concentrations in 0.1M HCl for Acetylated assay format.



Typical standard curve used to calculate cAMP concentrations in Assay Buffer 2 for Acetylated assay format.



Typical standard curve used to calculate cAMP concentrations in Assay Buffer 2 for Non-acetylated assay format.



Typical standard curve used to calculate cAMP concentrations in 0.1M HCl for Non-acetylated assay format.

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, culture supernatants, serum, saliva, and tissue from any species.
Assay Time	3 hours
Compatibility	This product is compatible with the **Absorbance 96 Plate Reader**.
Contents	GxR IgG Microtiter plate, Conjugate, Antibody, 0.1M HCl, Assay buffer 2, Neutralizing reagent, Wash buffer concentrate, Standard, pNpp Substrate, Stop solution, Triethylamine, Acetic anhydride
Crossreactivity	cyclic AMP (100%)AMP, ATP, cyclic GMP, GMP, GTP, cyclic UMP, CTP (<0.001%)
Sensitivity	Non-acetylated: 0.49 pmol/ml (assay buffer) / 1.18 pmol/ml (HCl) (range (non-acetylated) 0.78 – 200 pmol/ml)Acetylated: 0.027 pmol/ml (assay buffer) / 0.006 pmol/ml (HCl) (range (acetylated) 0.078 – 20 pmol/ml)
Species Reactivity	Species independent
Wavelength	405 nm

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