Anti-cGMP Antibody

CATALOG NO: A1285-50

AMOUNT: 50 µg

IMMUNOGEN: 3', 5'-cyclic GMP-8-KLH

CLONE: 2F11E10

HOST/ISOTYPE: Mouse IgG2a, κ

PURIFICATION: Protein A purification

FORM: Liquid

FORMULATION: PBS, pH 7.4, containing 0.02% sodium azide

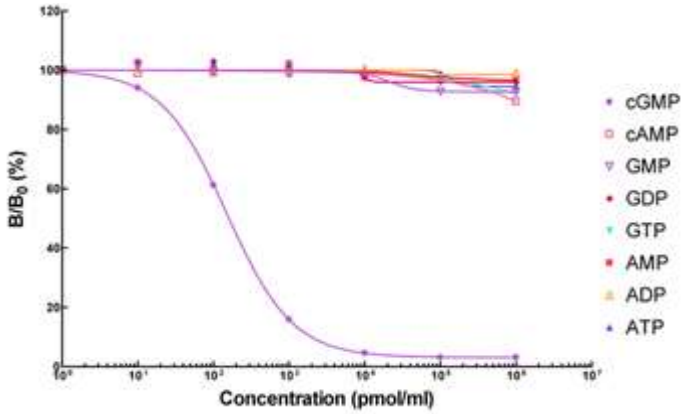
SPECIFICITY: The specificity of the antibody is defined as the ratio of antigen concentration to cross-reactant concentration at 50% inhibition of maximum binding.

STORAGE CONDITIONS: Store at 2-8°C for 2-3 weeks. For long term storage, aliquot and store at -20°C or below. Avoid repeated freezing and thawing cycles.

DESCRIPTION: Guanosine 3, 5-cyclic monophosphate (cyclic GMP; cGMP) acts as a secondary messenger much like cyclic AMP. It is generally known to activate intracellular protein kinases in response to the binding of membrane-impermeable peptide hormones to the cell surface. cGMP synthesis is catalyzed by guanylate cyclase (GC), which converts GTP to cGMP. Membrane-bound GC is activated by peptide hormones such as atrial natriuretic factor, while soluble GC is typically activated by nitric oxide (NO) to stimulate cGMP synthesis. cGMP is also a common regulator of ion channel conductance, glycogenolysis, and cellular apoptosis. It also relaxes smooth muscle tissues. The roles of cGMP and cAMP may be linked, as evidenced by the fact that some cellular functions are controlled bi-directionally by both cAMP and cGMP. Some functions are stimulated by cGMP and suppressed by cAMP and vice versa.

APPLICATION: ELISA: 0.04-0.1 µg/ml
This antibody is derived from immunization of cyclic GMP derivative conjugated to KLH at position 8 of the guanine structure. It may not react well with cGMP conjugated via other positions.

Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.



cGMP Competitive ELISA:

1. ELISA plate was coated with goat anti mouse IgG antibody
2. Anti-cGMP monoclonal antibody at appropriate dilution and cGMP standards or testing compounds were added into appropriate reaction wells.
3. After a period of incubation, cGMP-HRP conjugate was added followed by proper period of incubation.
4. ELISA plate was washed with ELISA washing buffer, then TMB substrate was added and developed at room temperature.
5. Stop the reaction with 1.0 N HCl and read the plate at 450nm

RELATED PRODUCTS:

- cGMP Antibody **(Cat. No. 3568)**
- cGMP Direct Immunoassay Kit (Colorimetric) **(Cat. No. K372)**
- 8-Br-cGMP **(Cat. No. 1838)**
- His-Tag Antibody (Clone 11E12) **(Cat. No. 6714-100)**
- His-Tag Antibody (Clone BV-G020) **(Cat. No. 3646-100)**

FOR RESEARCH USE ONLY! Not to be used on humans.