cGMP Assay Kit - Direct Immunoassay ab65356

Overview

Product name: cGMP Assay Kit - Direct Immunoassay
Sample type: Urine, Serum, Plasma, Other biological fluids, Tissue Extracts, Cell Lysate, Cell culture media
Assay type: Quantitative
Sensitivity: > 0.008 µM
Range: 0.008 µM - 2 µM

Product overview:
Abcam's cGMP Assay Kit (ab65356) provides a direct competitive immunoassay for sensitive and quantitative determination of cGMP level in biological samples. The kit utilizes the recombinant Protein G coated plate to anchor cGMP polyclonal antibody. cGMP-HRP conjugates directly competes with cGMP from samples for binding to the cGMP specific antibody on the plate. After incubation and washing, the amount of cGMP-HRP bound to plate can easily be determined by reading OD450nm. The intensity of OD450nm is inversely proportional to the concentration of cGMP in samples. The kit provides a new acetylation procedure that improves detection signal significantly. The kit can detect 0.04-10 pmol/well (0.008-2 µM) cGMP samples. Visit our FAQs page for tips and troubleshooting.

Storage instructions:
Store at -20°C. Please refer to protocols.

Storage buffer:
Preservative: None
Constituents: BSA

Properties

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>10X cGMP Assay Buffer</td>
<td>WM</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>Acetylating Reagent A</td>
<td>Violet</td>
<td>1 x 750µl</td>
</tr>
<tr>
<td>Acetylating Reagent B</td>
<td>Black</td>
<td>1 x 1.5ml</td>
</tr>
<tr>
<td>Anti-cGMP pAb/BSA</td>
<td>Red</td>
<td>1 vial</td>
</tr>
<tr>
<td>cGMP-HRP/BSA</td>
<td>Green</td>
<td>1 vial</td>
</tr>
<tr>
<td>HRP Developer</td>
<td>Amber</td>
<td>1 x 10ml</td>
</tr>
</tbody>
</table>
Relevance

Cyclic guanosine monophosphate (cGMP) is a cyclic nucleotide derived from guanosine triphosphate (GTP). It serves as a second messenger in a manner similar to that observed with cAMP. Peptide hormones, such as the natriuretic factors, activate receptors that are associated with membrane-bound guanylate cyclase (GC). Receptor activation of GC leads to the conversion of GTP to cGMP. Nitric oxide (NO) also stimulates cGMP production by activating soluble GC, perhaps by binding to the heme moiety of the enzyme. Similar to cAMP, cGMP mediates most of its intracellular effects through the activation of specific cGMP dependent protein kinases (PKG).

Images

O.D.'s of human urine measured at various dilutions (+/- SD)

Standard curve showing mean of duplicates (+/-SD) with background readings subtracted

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