Alkaline Phosphatase Assay Kit (Colorimetric) ab83369

**Overview**

**Product name**
Alkaline Phosphatase Assay Kit (Colorimetric)

**Sample type**
Urine, Serum, Plasma, Other biological fluids, Tissue Extracts, Cell Lysate, Cell culture media

**Assay type**
Quantitative

**Sensitivity**
> 10 µU

**Range**
10 µU - 250 µU

**Product overview**
Alkaline Phosphatase Assay Kit (Colorimetric) ab83369 is a highly sensitive, simple, direct and HTS-ready colorimetric assay designed to measure alkaline phosphatase (ALP) activity in serum and other mammalian samples.

The kit uses p-nitrophenyl phosphate (pNPP) as a phosphatase substrate which turns yellow (λmax= 405 nm) when dephosphorylated by ALP.

Visit our [FAQs page](#) for tips and troubleshooting.

**Notes**
This kit contains 10 substrate tablets providing convenience for multiple usages.

**Properties**

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>500 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALP Assay buffer</td>
<td>NM</td>
<td>1 x 100ml</td>
</tr>
<tr>
<td>ALP Enzyme (Lyophilised)</td>
<td>Green</td>
<td>1 vial</td>
</tr>
<tr>
<td>pNPP Substrate (10 tablets)</td>
<td>Red</td>
<td>1 vial</td>
</tr>
<tr>
<td>Stop Solution</td>
<td>WM</td>
<td>1 x 10ml</td>
</tr>
</tbody>
</table>

**Relevance**
Alkaline phosphatase (ALP) catalyzes the hydrolysis of phosphate esters in alkaline buffer and produces an organic radical and inorganic phosphate. Changes in alkaline phosphatase level and activity are associated with various disease states in the liver and bone.

**Cellular localization**
Cell membrane; Lipid-anchor, GPI-anchor.
Alkaline phosphatase was measured in Caco-2 cells after 48 hours treatment with PMA and Butyrate using Alkaline Phosphatase assay kit (ab83369).

Standard curve: mean of duplicates (+/- SD) with background reads subtracted

ALP measured in cell culture supernatants showing activity (U) per mL of tested sample. Samples were diluted 1-16 fold.
ALP measured in biological fluids showing activity (U) per mL of tested sample. Samples were diluted 4-64 fold.

Functional Studies - Alkaline Phosphatase
Colorimetric Assay Kit (ab83369)

Measurement of ALP activity using ab83369.

a. ALP activity in fresh medium (80 μL, without culturing), 3 day old HeLa cell culture medium (80 μL) and human serum (80 μL, 1/10 dilution).
b. ALP activity in HeLa cells. 5 x 10^4 HeLa cells were homogenized in 1 mL of Assay Buffer, diluted 1/10 in Assay Buffer, and 80 μL used for the measurement.

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