

Pyrophosphate Assay Kit II (Fluorometric) ab179836

★★★★★ [1 Abreviews](#) [1 References](#) [5 Images](#)

Overview

Product name	Pyrophosphate Assay Kit II (Fluorometric)
Detection method	Fluorescent
Sample type	Serum, Plasma, Cell Lysate, Tissue Lysate
Assay type	Quantitative
Sensitivity	$\geq 1 \mu\text{M}$
Species reactivity	Reacts with: Mammals, Other species
Product overview	<p>Pyrophosphate (PPi) are produced by a number of biochemical reactions, such as ATP hydrolysis, DNA and RNA polymerizations, cyclic AMP formation by the enzyme adenylate cyclase and the enzymatic activation of fatty acids to form their coenzyme A esters.</p> <p>Pyrophosphate Assay Kit II (Fluorometric) (ab179836) provides the most robust spectrophotometric method for the measurement of pyrophosphate. It uses our proprietary fluorogenic pyrophosphate sensor that has its fluorescence intensity proportionally dependent upon the concentration of pyrophosphate. Our assay is much easier and more robust than enzyme-coupling pyrophosphate methods, which require at least two enzymes for their pyrophosphate detections. Due to its direct measurement of pyrophosphate, this kit is ideal for screening inhibition or activities of enzymes that consume or generate pyrophosphate with enhanced selectivity to pyrophosphate. The assay is an optimized mix-and-read assay and can be performed in a convenient 96-well or 384-well microtiter-plate format. The kit provides all the essential components for assaying pyrophosphate.</p> <p>Assay time: 10-30 minutes</p>
Notes	<p>This product measures PPi formation at Ex/Em = 370/470 nm.</p> <p>If your instrument has filters for Ex/Em = 316/456 nm, we recommend using <u>Pyrophosphate Assay Kit (Fluorometric) (ab112155)</u>.</p> <p>Samples such as plasma and serum might need a deproteinization step with spin columns</p>
Platform	Microplate reader

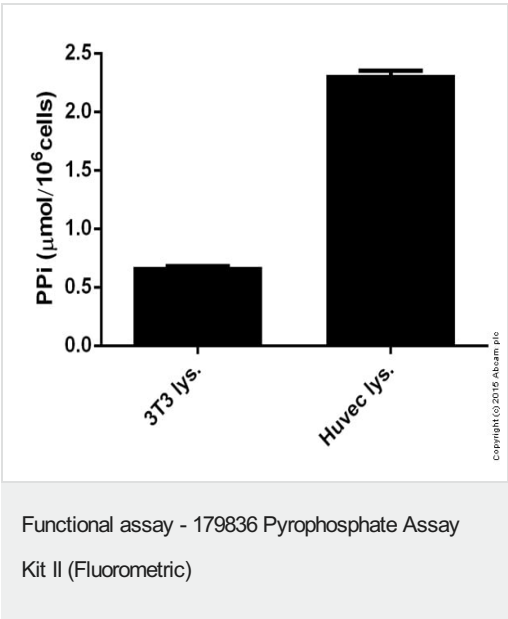
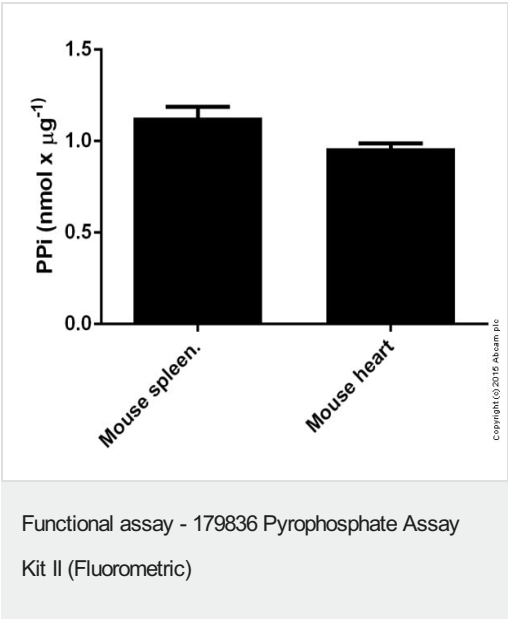
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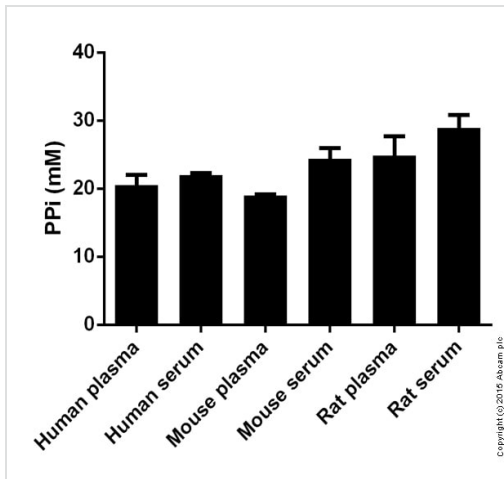
Storage instructions

Store at -20°C. Please refer to protocols.

Components	200 tests
Assay Buffer	1 x 25ml
DMSO	1 x 100µl
PPi Sensor	1 vial
Pyrophosphate Standard (50mM)	1 x 1ml

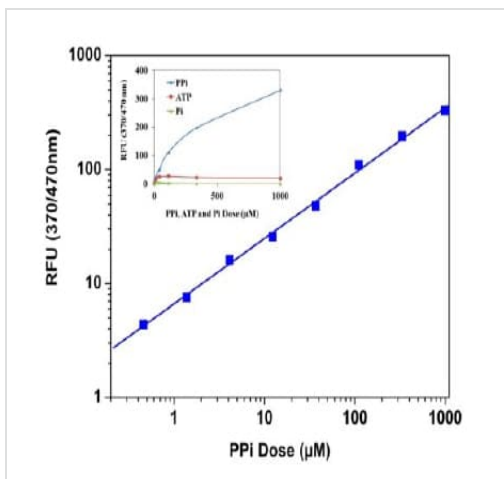
Images





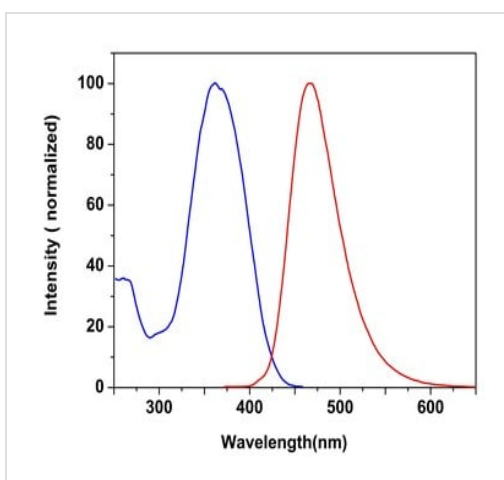
Pyrophosphate measured in biological fluids showing concentration (millimolar). The samples were tested in the dilution range of 1:200-1:5000.

Functional assay - 179836 Pyrophosphate Assay Kit II (Fluorometric)



Pyrophosphate, ATP and phosphate dose responses were measured with the Abcam Pyrophosphate Assay Kit II (Fluorometric) (ab179836) in a solid black 96-well plate using a fluorescence microplate reader. As low as 1 μ M (100 picmoles/well) pyrophosphate can be detected with 10 minutes incubation.

Pyrophosphate standard curve



Excitation and Emission Spectra for Pyrophosphate Assay Kit II (Fluorometric) (ab179836)

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