

# Product Datasheet

## PiColorLock Gold Colorimetric Assay Kit 303-0030

Unit Size: 1 x 625/1560 Tests

Store at 4C. Do not freeze.

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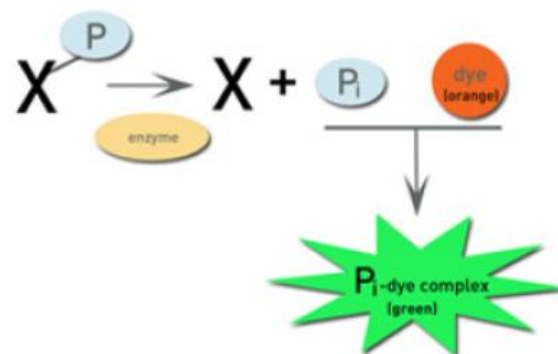


**303-0030****PiColorLock Gold Colorimetric Assay Kit**

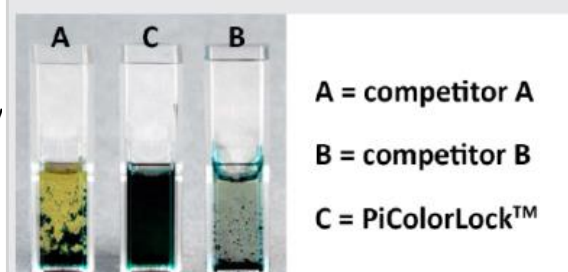
<b>Product Information</b>	
<b>Unit Size</b>	1 x 625/1560 Tests
<b>Concentration</b>	Concentration is not relevant for this product. Please see the protocols for proper use of this product.
<b>Storage</b>	Store at 4C. Do not freeze.
<b>Buffer</b>	Colorlock 635/1560 assays reagent is supplied with a phosphate standard solution.
<b>Product Description</b>	
<b>Description</b>	<p>PiColorLock phosphate detection reagent changes colour in the presence of inorganic phosphate (Pi). This can be exploited to measure any enzyme that generates Pi including ATPases, GTPases, phosphatases, heat-shock proteins and DNA unwinding proteins.</p> <p>The unique formulation of PiColorLock affords enhanced assay linearity, dynamic range and colour stability; it is also possible with PiColorLock to work with unstable substrates (e.g. ATP, GTP) that give high non-enzymatic background signals with other acidic dye-based detection reagents.</p> <p><b>FeaturesBenefits</b>Colorimetric assaySimple, scalable and non-radioactiveCompatible with almost any assay bufferFlexibility over a wide range of existing assaysStable reagent formulationLong shelf lifeUnique accelerator and stabilizerSpeeds up color developmentPiColorLock-Pi complex is very stableNo precipitation, results can be measured over several hours - ideal for HTSWide linear rangeNo inhibition of color development by high concentrations of protein</p>
<b>Notes</b>	PiColorlock® is a registered trademark of Innova Biosciences.

## Images

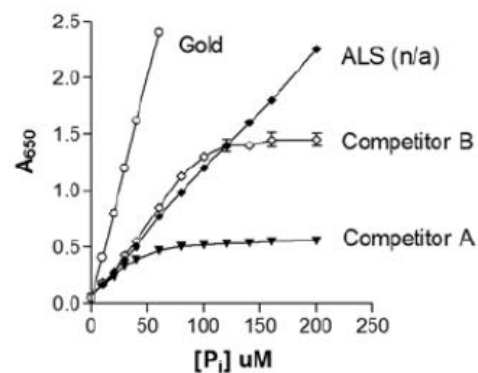
PiColorlock Gold Colorimetric Assay Kit [303-0030] - Universal assay for inorganic phosphate. Phosphorylated substrate (X-P) is acted on by an enzyme releasing X and inorganic phosphate. The reaction is halted by the addition of an acidified dye reagent (orange), which turns green or yellow in the presence or absence of inorganic phosphate.



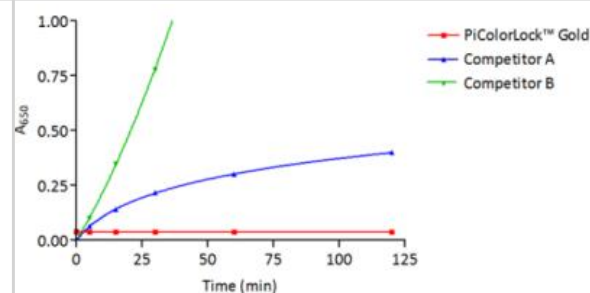
PiColorlock Gold Colorimetric Assay Kit [303-0030] - Most detection reagents form very unstable dye complexes and samples need to be read promptly. In cuvette assays there can be a total loss of signal if a precipitate forms and settles. In plate assays, the data become extremely erratic when clumps of material form in the light path. PiColorlock complexes are stable for many hours, which allows multiple assay plates or cuvettes to be conveniently set up as a batch and read later using plate stackers or other automated equipment.



PiColorlock Gold Colorimetric Assay Kit [303-0030] - For the purposes of comparison, data for PiColorlock ALS reagent (no longer available) is also shown, as it provides similar absorbance values to competitor products, at least at low levels of inorganic phosphate. Competitors' products are linear over a much narrower range of concentrations. PiColorlock ALS reagent has now been superseded by PiColorlock Gold, which gives higher OD values.



PiColorlock Gold Colorimetric Assay Kit [303-0030] - Shows the effect of incubating ATP (without any added enzyme) with three commercial dye-based detection reagents.



## Publications

Dores-Silva PR, Nishimura LS, Kiraly VT et al. Structural and functional studies of the Leishmania braziliensis mitochondrial Hsp70: Similarities and dissimilarities to human orthologues. Arch Biochem Biophys. 2017 Jan 1 [PMID: 27840097]

Eniyan K, Kumar A, Rayasam GV et al. Development of a one-pot assay for screening and identification of Mur pathway inhibitors in Mycobacterium tuberculosis. Sci Rep. 2016 Oct 13 [PMID: 27734910]

Li C, Shen Y, Meeley R et al. Embryo defective 14 encodes a plastid-targeted cGTPase essential for embryogenesis in maize. Plant J. 2015 [PMID: 26771182]

Dellas N, Snyder JC, Dills M et al. Structure-Based Mutagenesis of Sulfolobus Turreted Icosahedral Virus B204 Reveals Essential Residues in the Virion-Associated DNA-Packaging ATPase. J Virol. 2015 Dec 23 [PMID: 26699645]

Zhou L, Zhang Q, Zhang P et al. c-Abl-mediated Drp1 phosphorylation promotes oxidative stress-induced mitochondrial fragmentation and neuronal cell death. Cell Death Dis. 2017 Oct 12 [PMID: 29022905]

Basu A, Yap MN. Disassembly of the Staphylococcus aureus hibernating 100S ribosome by an evolutionarily conserved GTPase. Proc Natl Acad Sci U S A. 2017 Sep 26 [PMID: 28894000]

Kandimalla R, Manczak M, Fry D et al. Reduced Dynamin-related Protein 1 Protects Against Phosphorylated Tau-induced Mitochondrial Dysfunction and Synaptic Damage in Alzheimer's Disease. Hum Mol Genet. 2016 Nov 15 [PMID: 28173111]

Press O, Zvagelsky T, Vyazmensky M et al. Construction of Structural Mimetics of the Thyrotropin Receptor Intracellular Domain. Biophys J. 2016 Dec 20 [PMID: 28002738]

Habeck M, Tokhtaeva E, Nadav Y et al. Selective assembly of Na,K-ATPase alpha2beta2 heterodimers in the heart: distinct functional properties and isoform-selective inhibitors. J Biol Chem. 2016 Oct 28 [PMID: 27624940]

Ye Q, Yang Y, van Staalduijn L et al. Structure of the Dictyostelium Myosin-II Heavy Chain Kinase A (MHCK-A) [alpha]-kinase domain apoenzyme reveals a novel autoinhibited conformation. Sci Rep. 2016 May 23 [PMID: 27211275]

Parsi CJ, Liu Q, Li YM. Benzimidazole covalent probes and the gastric H<sup>+</sup>/K<sup>+</sup>-ATPase as a model system for protein labeling in a copper-free setting. Mol Biosyst. 2016 [PMID: 26952080]

Guillet V, Galandrin S, Maveyraud L et al. Insight into Structure-Function Relationships and Inhibition of the Fatty Acyl-AMP Ligase (FadD32) Orthologs from Mycobacteria. J Biol Chem. 2016 Apr 8 [PMID: 26900152]

More publications at <http://www.novusbio.com/303-0030>



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