

## PAP1

### Native Non-Prostatic Acid Phosphatase, Sweet Potato

<b>Catalog No.</b>	CSI13775B CSI13775C	<b>Quantity:</b>	1 KU 10 KU
<b>Alternate Names:</b>	Purple acid phosphatase 1, ACP		
<b>Description:</b>	Acid Phosphatase is a phosphomonoesterase, an enzyme that cleaves phosphate groups from other molecules during digestion. Acid Phosphatases are stored in lysosomes and function upon fusion with endosomes. The acidic environment of the endosome is required for function. This enzyme is present in many animal and plant species. Different forms of acid phosphatase are found in different organs, and their serum levels are used to evaluate the success of the surgical treatment of prostate cancer. In the past, they were also used to diagnose this type of cancer.		
<b>UniProt ID:</b>	Q9SE00		
<b>Source:</b>	Sweet potato <i>Ipomoea batatas</i>		
<b>Appearance:</b>	Light purple powder		
<b>Solubility:</b>	Clear light purple solution (at 10 mg/ml in saline)		
<b>Molecular Weight:</b>	110 kDa		
<b>Activity:</b>	≥ 30 U/mg solid		
<b>Unit Definition:</b>	One unit will catalyze the hydrolysis of one micromole of p-nitrophenylphosphate to p-nitrophenol and phosphate per minute at pH 4.8 and 37°C		
<b>Specific Activity:</b>	≥ 300 U/mg protein		
<b>Protein:</b>	Report mg protein/mg solid (Coomassie)		
<b>Formulation:</b>	Lyophilized from 50 mM citrate, 1 g/L trehalose, and 1 g/L (W/V) PEG 20,000, pH 6.5		
<b>Purification:</b>	Chromatographically purified		
<b>Contaminants:</b>	β-Amylase α-Amylase		
<b>Reconstitution:</b>	Reconstitute at 1-10 mg/ml in deionized water or saline. Dispense stock solution into single use aliquots (>20μl)		
<b>Storage &amp; Stability:</b>	Store lyophilized protein at -20°C to -80°C for at least 1 year. Store aliquots of the stock solution at -20°C to -80°C. <b>Avoid freeze/thaw of the enzyme solution.</b>		

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