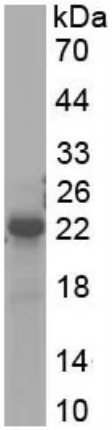
Active Acid Phosphatase 1 (ACP1)

Catalog#:PEM12581

概述（Summary）

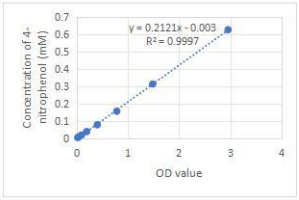
别称（Alternative Names）	HAAP; Low Molecular Weight Phosphotyrosine Protein Phosphatase; Adipocyte acid phosphatase; Red cell acid phosphatase 1; LMW-PTPase
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Met1-Tyr158】
Accession #	Q9D358
表达宿主（Host）	E.coli
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	21.6 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Acts on tyrosine phosphorylated proteins, low-MW aryl phosphates and natural and synthetic acyl phosphates.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）



OD405	4-Nitrophenol (mM)
2.9522	0.625
1.4834	0.3125
0.7836	0.15625
0.4016	0.078125
0.1954	0.0390625
0.0964	0.01953125
0.0475	0.009765625
0.0221	0.004882813

Figure 1. The standard curve of 4-Nitrophenol
One unit of enzyme activity is defined as the 1 μg of enzyme required to convert 1 pmol of PNPP to 4-nitrophenol in 1 min.

Specific Activity (pmol/min/μg)= $\frac{\Delta RFU * F}{T * N}$

△RFU=Adjusted for Substrate Blank
F=Conversion Factor (convert from standard curve of 4-nitrophenol)
T= Time
N=Amount of enzyme

Acid phosphatase locus 1 (ACP1) is a low molecular weight protein tyrosine phosphatase that has been shown to be an important regulator of insulin receptor signaling. The activity assay of recombinant mouse ACP1 was measured by its ability to cleave a peptide substrate, 4-Nitrophenyl phosphate disodium (PNPP). The reaction was performed in 50 mM NaOAc, pH 5.0 (assay buffer), initiated by addition 50 μl of 3 ug/ml ACP1 (diluted by assay buffer) to 50 μL of 2 mM substrate. Incubated at room temperature for 5 minutes in the dark and add 100 μl of 0.2 M NaOH to stop the reaction. Read at a wavelength of 405 nm (top read), the specific activity of recombinant mouse ACP1 is >32000 pmol/min/μg.

注意事项（Note）

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