



Human acid phosphatase 5, tartrate resistant (ACP5) ELISA kit (0.312-20 ng/mL, 0.129 ng/mL)

Cat. No.:	OB0525WXX-119
Assay Type:	Quantitative sandwich ELISA
Target Species:	Human
Assay Target:	ACP5
Size:	24T; 48T; 96T

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description

Human acid phosphatase 5, tartrate resistant (ACP5) ELISA kit (0.312-20 ng/mL, 0.129 ng/mL) is a ready-to-use ELISA kit for analyzing human ACP5 levels with a detection range of 0.312-20 ng/mL and a sensitivity of 0.129 ng/mL.

Assay Principle

The detection principle used in this kit is a sandwich enzyme immunoassay. The microtiter plate provided in this kit is pre-coated with an antibody specific for ACP5. Standards or samples are added to the wells of the microtiter plate along with a biotin antibody specific for ACP5. Avidin conjugated to HRP is then added to each microplate well and incubated. Upon addition of TMB substrate solution, only wells containing ACP5, biotin-conjugated antibody, and enzyme-conjugated avidin will show a color change. The enzyme-substrate reaction is terminated by the addition of sulfuric acid solution, and the color change is then measured spectrophotometrically at $450 \text{ nm} \pm 10 \text{ nm}$. The concentration of ACP5 in the sample can then be determined by comparing the OD of the sample to a standard curve.

Background

ACP5 is involved in the dephosphorylation of proteins. Its expression appears to increase in certain pathological states. Mice overexpressing *ACP5* have been found to exhibit hyperplastic obesity. There are two phenotypes of this enzyme: 5a and 5b. TRAP 5a binds to preadipocytes and may exert cell number-regulating activity, inducing preadipocyte proliferation/differentiation. TRAP 5b may also induce the proliferation of certain cell types.



Synonyms	HPAP; TRAP; TRACP5a; TRACP5b; TrATPase; Tartrate-resistant acid phosphatase type 5; Tartrate-resistant acid ATPase; TrATPase; Type 5 acid phosphatase; Tartrate-resistant acid phosphatase; TRAP 5; ACP 5; EC 3.1.3.2
Formula Weight	36,599 Da
Applications	Human acid phosphatase 5, tartrate resistant (ACP5) ELISA kit (0.312-20 ng/mL, 0.129 ng/mL) is designed for the <i>in vitro</i> quantitative analysis of ACP5 levels in human serum, plasma, tissue homogenates, and other biological fluid samples.
Research Area	Hormone regulation; Metabolites; Defense response; Inflammatory; Obesity

Specification

Sample Type	Serum; Plasma; Tissue homogenates; Other biological fluids
Detection Range	0.312-20 ng/mL
Sensitivity	0.129 ng/mL
Precision (Intra-assay)	CV<10%
Precision (Inter-assay)	CV<12%
Cross-reactivity	No significant cross-reactivity or interference was observed.
Storage	Store at 2-8°C.