Datasheet for ABIN367458

ACP5 ELISA Kit

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Overview

Quantity:	96 tests
Target:	ACP5
Reactivity:	Rat
Method Type:	Sandwich ELISA
Detection Range:	0.312-20 mIU/mL
Minimum Detection Limit:	0.312 mIU/mL
Application:	ELISA

Product Details

Purpose:	For the quantitative determination of rat tartrate-resistant acid phosphatase 5b (TRACP-5b) concentrations in serum, plasma, tissue homogenates.
Sample Type:	Serum, Plasma, Tissue Homogenate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This assay has high sensitivity and excellent specificity for detection of rat TRACP-5b.
Cross-Reactivity (Details):	Limited by current skills and knowledge, it is impossible for us to complete the cross-reactivity detection between the target antigen and all analogues for other species. Therefore, cross reaction may still exist.
Sensitivity:	0.078 mIU/mL
Components:	• Assay plate (12 × 8 coated Microwells)

Product Details

- Standard (freeze dried)
- Biotin-antibody (100 × concentrate)
- HRP-avidin (100 × concentrate)
- Biotin-antibody Diluent
- HRP-avidin Diluent
- Sample Diluent
- Wash Buffer (25 × concentrate)
- TMB Substrate
- Stop Solution
- Adhesive Strip (for 96 wells)
- Instruction manual

Target Details

Target:	ACP5
Alternative Name:	Tartrate-resistant acid phosphatase 5b (TRACP-5b) (ACP5 Products)
Pathways:	Transition Metal Ion Homeostasis

Application Details

Application Notes:

- The supplier is only responsible for the kit itself, but not for the samples consumed during the assay. The user should calculate the possible amount of the samples used in the whole test. Please reserve sufficient samples in advance.
- Samples to be used within 5 days may be stored at 2-8°C, otherwise samples must be stored at -20°C (≤ 1 month) or -80°C (≤ 2 months) to avoid loss of bioactivity and contamination.
- Grossly hemolyzed samples are not suitable for use in this assay.
- If the samples are not indicated in the manual, a preliminary experiment to determine the validity of the kit is necessary.
- Please predict the concentration before assaying. If values for these are not within the range of the standard curve, users must determine the optimal sample dilutions for their particular experiments.
- Tissue or cell extraction samples prepared by chemical lysis buffer may cause unexpected ELISA results due to the impacts of certain chemicals.
- Owing to the possibility of mismatching between antigens from another resource and antibodies used in this supplier's kits (e.g., antibody targets conformational epitope rather than linear epitope), some native or recombinant proteins from other manufacturers may not be recognized by this supplier's products.
- Influenced by factors including cell viability, cell number and cell sampling time, samples from cell culture supernatant may not be recognized by the kit.
- Fresh samples without long time storage are recommended for the test. Otherwise, protein degradation and denaturalization may occur in those samples and finally lead to wrong

	results.
Comment:	Detection wavelength: 450 nm Information on standard material: Depending on the antigen to be detected, standards can be either native or recombinant protein. The recombinant proteins are being expressed in CHO cells in most cases. Please inquire for more information. The formulation of auxiliary material in the standard is considered proprietary information, however it does not contain any poisonous substance. Proclin 300 (1:3000) is used as preservative. Information on reagents: In most cases the stop solution provided is 1 N H2SO4. The formulation of wash solution is proprietary information. None of the components contain (sodium) azide, thimerosal, 2-mercaptoethanol (2-ME) or any other poisonous materials. For the sandwich method kits, the sample diluent, antibody diluent, enzyme diluent and standard all contain BSA. Information on antibodies: The antibodies provided in different kits vary in regards to clonality and host. Some antibodies are affinity purified, some are Protein A
Sample Volume:	100 µL
Assay Time:	1 - 4.5 h
Plate:	Pre-coated
Protocol:	This assay employs the quantitative sandwich enzyme immunoassay technique. Antibody specific for TRACP-5b has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any TRACP-5b present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for TRACP-5b is added to the wells. After washing, avidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of TRACP-5b bound in the initial step. The color development is stopped and the intensity of the color is measured.
Assay Precision:	Intra-assay precision (precision within an assay): Three samples of known concentration were tested twenty times on one plate to assess precision.

Application Details

	Inter-assay precision (precision between assays): Three samples of known concentration were tested in twenty assays to assess precision. • Intra-assay: CV% less than 8% • Inter-assay: CV% less than 10%
Restrictions:	For Research Use only

Handling

Precaution of Use:	The Stop Solution provided with this kit is an acid solution. Wear eye, hand, face and clothing protection when using this material.
Handling Advice:	• The kit should not be used beyond the expiration date on the kit label. • Do not mix or substitute reagents with those from other lots or sources. • If samples generate values higher than the highest standard, dilute the samples with Sample Diluent and repeat the assay. • Any variation in Sample Diluent, operator, pipetting technique, washing technique, incubation time/temperature and kit age can cause variation in binding. • This assay is designed to eliminate interference by soluble receptors, binding proteins and other factors present in biological samples. Until all factors have been tested in the Immunoassay, the possibility of interference cannot be excluded.
Storage:	4 °C/-20 °C
Storage Comment:	For unopened kit: All the reagents should be kept according to the labels on vials.
Expiry Date:	6 months

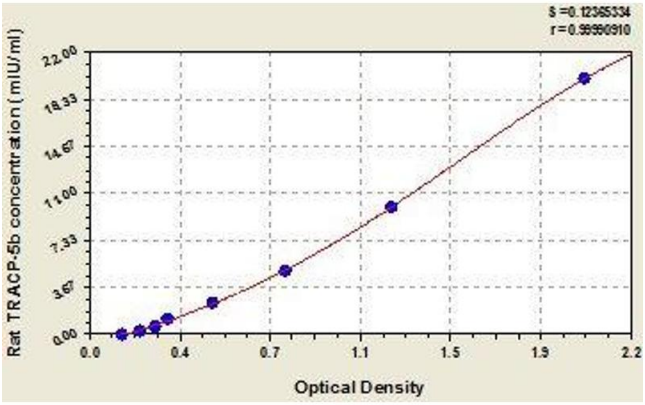
Publications

Product cited in:	Zeng, Zhong, Li, Wu, Zheng, Zhou, Ye, Xie, Wu, Huang, Chen: "Advanced oxidation protein products accelerate bone deterioration in aged rats." in: **Experimental gerontology**, Vol. 50, pp. 64-71, (2014) (PubMed). Kim, Kim, Leem et al.: "Osteogenic activity of collagen peptide via ERK/MAPK pathway mediated boosting of collagen synthesis and its therapeutic efficacy in osteoporotic bone by back-scattered electron imaging and ..." in: **Molecules (Basel, Switzerland)**, Vol. 18, Issue 12, pp. 15474-89, (2014) (PubMed). Khajuria, Razdan, Mahapatra: "Development, in vitro and in vivo characterization of zoledronic acid functionalized hydroxyapatite nanoparticle based formulation for treatment of

osteoporosis in animal model." in: **European journal of pharmaceutical sciences : official journal of the European Federation for Pharmaceutical Sciences**, Vol. 66C, pp. 173-183, (2014) (PubMed).

Guo, Yang, Ni, He, Yang: "A role for suppressed bone formation favoring catch-up fat in the pathophysiology of catch-up growth after food restriction." in: **European journal of nutrition**, Vol. 50, Issue 8, pp. 645-55, (2011) (PubMed).

Images



ELISA

Image 1. Typical standard curve