



Mouse tartrate-resistant acid phosphatase 5b (TRACP-5b) ELISA kit

Cat. No.:	OB0525WXX-136
Assay Type:	Quantitative sandwich ELISA
Target Species:	Mouse
Assay Target:	TRACP-5b
Size:	24T; 48T; 96T

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

Product Overview

Description

Mouse tartrate-resistant acid phosphatase 5b (TRACP-5b) ELISA kit is a ready-to-use ELISA kit for analyzing mouse TRACP-5b levels with a detection range of 0.078-5 mIU/mL. Its sensitivity is less than 0.02 mIU/mL and is an efficient dynamic research tool.

Assay Principle

The assay employs a quantitative sandwich enzyme immunoassay technique. An antibody specific for TRACP-5b has been pre-coated on a microtiter plate. Standards and samples are pipetted into the wells, and any TRACP-5b is bound by the immobilized antibody. After removal of unbound material, a biotin-conjugated antibody specific to TRACP-5b is added to the wells. After washing, avidin-conjugated HRP is added to the wells. After washing to remove unbound avidin-enzyme reagent, a substrate solution is added to the wells, and the 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.

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	TRAP 5b; sTRAP (Serum tartrate-resistant acid phosphatase, used in a clinical context); Tartrate-resistant acid phosphatase type 5b
Formula Weight	36,807 Da
Applications	Mouse tartrate-resistant acid phosphatase 5b (TRACP-5b) ELISA kit is designed for the <i>in vitro</i> quantitative analysis of TRACP-5b levels in mouse serum, plasma, and tissue homogenate samples.
Research Area	Protein dephosphorylation; Obesity

Specification

Sample Type	Serum; Plasma; Tissue homogenates
Detection Range	0.078-5 mIU/mL
Sensitivity	<0.02 mIU/mL
Precision (Intra-assay)	CV<8%
Precision (Inter-assay)	CV<10%
Cross-reactivity	No significant cross-reactivity or interference was observed.
Storage	Store at 2-8°C.