Datasheet for ABIN921118

p53 ELISA Kit

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Overview

Quantity:	96 tests
Target:	p53 (TP53)
Binding Specificity:	AA 1-393
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human P53
Brand:	PicoKine™
Sample Type:	Cell Lysate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: M1-D393
Specificity:	Expression system for standard: NSO Immunogen sequence: M1-D393
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	p53 (TP53)
Alternative Name:	TP53 (TP53 Products)
Background:	Protein Function: Acts as a tumor suppressor in many tumor types, induces growth arrest or apoptosis depending on the physiological circumstances and cell type. Involved in cell cycle regulation as a trans-activator that acts to negatively regulate cell division by controlling a set of genes required for this process. One of the activated genes is an inhibitor of cyclin-dependent kinases. Apoptosis induction seems to be mediated either by stimulation of BAX and FAS antigen expression, or by repression of Bcl-2 expression. Background: P53(also known as protein 53 or tumor protein 53), is a tumor suppressor protein that in humans is encoded by the TP53 gene. The human P53 gene is mapped to chromosome 17. Human p53 is 393 amino acids long and has seven domains. It runs as a 53-kilodalton(kDa) protein on SDS-PAGE. The pattern of p53 splicing was specific for brain areas and for individuals. And human kidney and heart expressed only full-length p53. It has played a vital role in conserving stability by preventing genome mutation. Synonyms: Cellular tumor antigen p53 ,TP53 , Full Gene Name: Cellular tumor antigen p53 Cellular Localisation: Cytoplasm. Nucleus.
Gene ID:	7157
UniProt:	K7PPA8
Pathways:	p53 Signaling, MAPK Signaling, PI3K-Akt Signaling, Apoptosis, AMPK Signaling, Chromatin Binding, ER-Nucleus Signaling, Positive Regulation of Endopeptidase Activity, Hepatitis C, Protein targeting to Nucleus, Autophagy, Warburg Effect

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.

Application Details

Plate:	Pre-coated
Protocol:	human P53 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for P53 has been precoated onto 96-well plates. Standards(NSO, M1-D393) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for P53 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human P53 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human P53 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell lysates to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human P53 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 1328, Standard deviation: 78.4, CV(%): 5.9 • Sample 2: n=16, Mean(pg/ml): 2789, Standard deviation: 173, CV(%): 6.2 • Sample 3: n=16, Mean(pg/ml): 5434, Standard deviation: 353.21, CV(%): 6.5, • Sample 1: n=24, Mean(pg/ml): 1502, Standard deviation: 103.7, CV(%): 6.9 • Sample 2: n=24, Mean(pg/ml): 2891, Standard deviation: 214, CV(%): 7.4 • Sample 3: n=24, Mean(pg/ml): 6120, Standard deviation: 508, CV(%): 8.3
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Publications

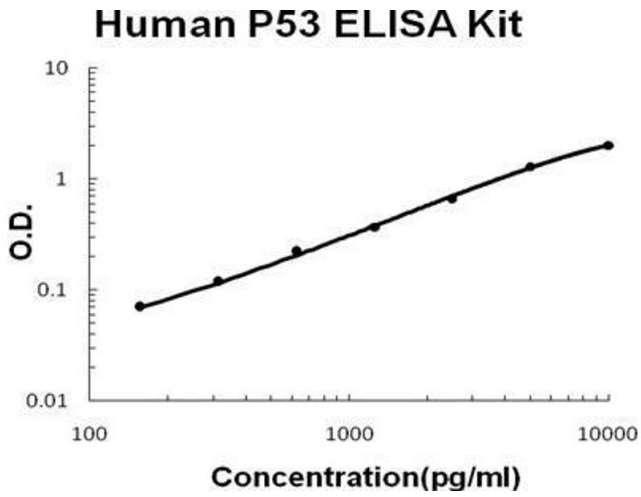
Product cited in:	Tang, Wang, Guo, Han, Li, Jin: "Prognostic significance of in situ and plasma levels of transforming growth factor β1, -2 and -3 in cutaneous melanoma." in: **Molecular medicine**

Publications

reports, Vol. 11, Issue 6, pp. 4508-12, (2015) (PubMed).

There are more publications referencing this product on: Product page

Images



ELISA

Image 1. Human P53 PicoKine ELISA Kit standard curve