Datasheet for ABIN1112620

HSP27 ELISA Kit

Go to Product page

Overview

Quantity:	96 tests
Target:	HSP27 (HSPB1)
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	For quantitative detection of HSP27 in human serum, body fluids, tissue lysates or cell culture supernates.
Sample Type:	Cell Culture Supernatant, Plasma, Serum, Tissue Lysate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	< 5 pg/mL
Components:	1. One 96-well plate pre-coated with anti-Human HSP27 antibody 2. Lyophilized HSP27 standards: 2 tubes (10ng / tube) 3. Sample / Standard diluent buffer: 30ml 4. Biotin conjugated anti-Human HSP27 antibody (Concentrated): 130 µl.
Material not included:	1. 37 °C incubator 2. Microplate reader (wavelength: 450nm) 3. Precise pipette and disposable pipette tips 4. Automated plate washer 5. ELISA shaker 6. 1.5ml of Eppendorf tubes 7. Plate cover 8. Absorbent filter papers 9. Plastic or glass container with volume of above 1L

Target Details

Target:	HSP27 (HSPB1)
Alternative Name:	HSP27 / HSPB1 (HSPB1 Products)
Background:	Heat shock protein 27 (Hsp27) also known as heat shock protein beta-1 (HSPB1), is a protein that in humans is encoded by the HSPB1 gene. Hsp27 appears in many cell types, especially all types of muscle cells. It is located mainly in the cytosol, but also in the perinuclear region, endoplasmatic reticulum, and nucleus. It is overexpressed during different stages of cell differentiation and development. The main function of Hsp27 is to provide thermotolerance in vivo, cytoprotection, and support of cell survival under stress conditions. Another function of Hsp27 is the activation of the proteasome. It is also involved in the apoptotic signalling pathway.
Pathways:	MAPK Signaling, Regulation of Actin Filament Polymerization, Signaling Events mediated by VEGFR1 and VEGFR2, Negative Regulation of intrinsic apoptotic Signaling, VEGF Signaling

Application Details

Comment:	This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Anti- HSP27 polyclonal antibody was pre-coated onto 96-well plates. And the biotin conjugated anti- HSP27 polyclonal antibody was used as detection antibodies. The standards test samples and biotin conjugated detection antibody were added - the wells subsequently and wash with wash buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with wash buffer. TMB substrates were used - visualize HRP enzymatic reaction. TMB was catalyzed by HRP - produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional - the HSP27 amount of sample captured in plate. Read the O.D. absorbance at 450 nm in a microplate reader and then the concentration of HSP27 can be calculated.
Plate:	Pre-coated
Reagent Preparation:	1. Before the experiment, centrifuge each kit component for several minutes to bring down all reagents to the bottom of tubes. 2. It is recommend to measure each standard and sample in duplicate. 3. Do NOT let the plate completely dry at any time! Since the dry condition can inactivate the biological material on the plate. 4. Do not reuse pipette tips and tubes to avoid cross contamination. 5. Do not use the expired components and the components from different batches. 6. To avoid the marginal effect of plate incubation for temperature differences (the marginal wells always get stronger reaction), it is recommend to equilibrate the ABC working solution and TMB substrate for at least 30 min at room temperature (37°C) before adding to

Application Details

	wells.The TMB substrate (Kit Component 8) is colorless and transparent before use, if not, please contact us for replacement.
Sample Preparation:	Preparation of sample and reagents 1. Sample Isolate the test samples soon after collecting, then, analyze immediately (within 2 hours). Or aliquot and store at -20 °C for long term. Avoid multiple freeze-thaw cycles. Tissue lysate or body fluids, cell culture supernate: Centrifuge to remove precipitate, analyze immediately or aliquot and store at -20 °C . Serum: Coagulate the serum at room temperature (about 4 hours). Centrifuge at approximately 2000 × g for 10 min. Analyze the serum immediately or aliquot and store at -20 °C . Note: 1. Coagulate blood samples completely, then, centrifuge, and avoid hemolysis and particle. 2. NaN3 can not be used as test sample preservative, since it is the inhibitor for HRP.
Restrictions:	For Research Use only

Handling

Preservative:	Sodium azide, Thimerosal (Merthiolate)