Datasheet for ABIN411387

Survivin ELISA Kit

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Overview

Quantity:	96 tests
Target:	Survivin (BIRC5)
Binding Specificity:	AA 1-142
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:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human Survivin
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: M1-D142
Specificity:	Expression system for standard: E.coli Immunogen sequence: M1-D142
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<2pg/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:	Survivin (BIRC5)
Alternative Name:	Survivin (BIRC5 Products)
Background:	Protein Function: Multitasking protein that has dual roles in promoting cell proliferation and preventing apoptosis. Component of a chromosome passage protein complex (CPC) which is essential for chromosome alignment and segregation during mitosis and cytokinesis. Acts as an important regulator of the localization of this complex, directs CPC movement to different locations from the inner centromere during prometaphase to midbody during cytokinesis and participates in the organization of the center spindle by associating with polymerized microtubules. The complex with RAN plays a role in mitotic spindle formation by serving as a physical scaffold to help deliver the RAN effector molecule TPX2 to microtubules. May counteract a default induction of apoptosis in G2/M phase. The acetylated form represses STAT3 transactivation of target gene promoters. May play a role in neoplasia. Inhibitor of CASP3 and CASP7. Isoform 2 and isoform 3 do not appear to play vital roles in mitosis. Isoform 3 shows a marked reduction in its anti-apoptotic effects when compared with the displayed wild-type isoform. . Background: Survivin(also termed API4) belongs to the family of genes known as inhibitors of apoptosis, and it has been implicated in both prevention of cell death and control of mitosis. Survivin is prominently expressed in transformed cell lines and in all the most common human cancers of lung, colon, pancreas, prostate and breast in vivo. It is also found in approximately 50 % of high-grade non-Hodgkin's lymphomas. Survivin encodes a deduced 142-amino acid protein and localizes on chromosome 17q25. The overexpression of it in cancer may overcome an apoptotic checkpoint and favour aberrant progression of transformed cells through mitosis. The standard product used in this kit is recombinant human Survivin with the molecular mass of 34 KDa. Synonyms: Baculoviral IAP repeat-containing protein 5,Apoptosis inhibitor 4,Apoptosis inhibitor survivin,BIRC5,API4, IAP4, Full Gene Name: Baculoviral IAP repeat-containing protein 5

Target Details

	Cellular Localisation: Cytoplasm. Nucleus. Chromosome. Chromosome, centromere. Cytoplasm, cytoskeleton, spindle. Chromosome, centromere, kinetochore. Midbody. Localizes on chromosome arms and inner centromeres from prophase through metaphase. Localizes to kinetochores in metaphase, distributes to the midzone microtubules in anaphase and at telophase, localizes exclusively to the midbody. Colocalizes with AURKB at mitotic chromosomes. Acetylation at Lys-129 directs its localization to the nucleus by enhancing homodimerization and thereby inhibiting XPO1/CRM1- mediated nuclear export.
Gene ID:	332
UniProt:	O15392
Pathways:	Apoptosis, Cell Division Cycle, Nuclear Hormone Receptor Binding

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.
Comment:	Sequence similarities: Belongs to the IAP family. Tissue Specificity: Expressed only in fetal kidney and liver, and to lesser extent, lung and brain. Abundantly expressed in adenocarcinoma (lung, pancreas, colon, breast, and prostate) and in high-grade lymphomas. Also expressed in various renal cell carcinoma cell lines. .
Plate:	Pre-coated
Protocol:	human Survivin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Survivin has been precoated onto 96-well plates. Standards(E.coli, M1-D142) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Survivin 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 Survivin amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human Survivin 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 culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that

Application Details

	each human Survivin standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 982, Standard deviation: 54.01, CV(%): 5.5 • Sample 2: n=16, Mean(pg/ml): 1640, Standard deviation: 68.88, CV(%): 4.2 • Sample 3: n=16, Mean(pg/ml): 2971, Standard deviation: 169.3, CV(%): 5.7, • Sample 1: n=24, Mean(pg/ml): 1246, Standard deviation: 83.5, CV(%): 6.7 • Sample 2: n=24, Mean(pg/ml): 2138, Standard deviation: 156.1, CV(%): 7.3 • Sample 3: n=24, Mean(pg/ml): 3145, Standard deviation: 201.3, CV(%): 6.4
Restrictions:	For Research Use only

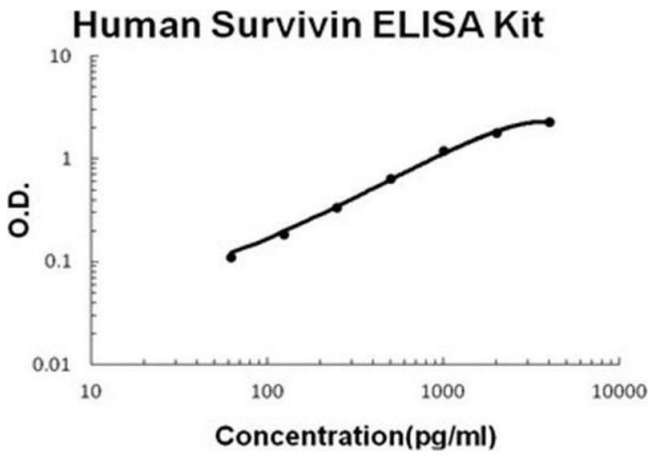
Handling

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:	Goričar, Kovač, Franko, Dodič-Fikfak, Dolžan: "Serum Survivin Levels and Outcome of Chemotherapy in Patients with Malignant Mesothelioma." in: **Disease markers**, Vol. 2015, pp. 316739, (2016) (PubMed).

Images



ELISA

Image 1. Human Survivin PicoKine ELISA Kit standard curve