abcam

Product datasheet

Human Survivin ELISA Kit ab183361

יעלשעבע SimpleStep ELISA

2 References 画像数 11

製品の概要

製品名 Human Survivin ELISA Kit

検出方法 Colorimetric

再現性

サンプル	N	平均値	SD	CV%
Jurkat cells	5			2.5%

Inter-Assay(日差再現性)

Intra-Assay(同時再現性)

サンプル	N	平均値	SD	CV%
Jurkat cells	3			5.5%

サンプルの種類 Cell culture supernatant, Urine, Serum, Adherent cells, Suspension cells, Tissue Extracts, Cit

plasma

アッセイタイプ Sandwich (quantitative)

検出感度 7 pg/ml

検出範囲 93.75 pg/ml - 6000 pg/ml

添加回収試験 79.5 %

特定サンプルでの回収試験

サンプルの種類	平均 %	測定範囲
Cell culture supernatant	86.4	85.4% - 87.4%
Urine	91.6	89.9% - 92.6%
Serum	79.5	78.5% - 80.5%
Cit plasma	99.2	94.6% - 102.3%

全工程の試験時間

1h 30m

ステップ

One step assay

種交差性

製品の概要

交差種: Human

Human Survivin ELISA kit (ab183361) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Survivin protein in human cell culture supernatant, serum, plasma, urine, cell and tissue extract samples. It uses our proprietary SimpleStep ELISA® technology. Quantitate human Survivin with 7 pg/mL sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- -Single-wash protocol reduces assay time to 90 minutes or less
- -High sensitivity, specificity and reproducibility from superior antibodies
- -Fully validated in biological samples
- -96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpeStep ELISA® kits.

Sensitivity:

Samples diluted in Sample Diluent NS - 28 pg/mL Samples diluted in Sample Diluent 75BP - 7 pg/mL Samples diluted in 1X Cell Extraction Buffer - 25 pg/mL

Survivin is a multitasking protein that has dual roles in promoting cell proliferation and preventing apoptosis. Survivin is a component of a chromosome passage protein complex (CPC) which is essential for chromosome alignment and segregation during mitosis and cytokinesis. Survivin 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 it participates in the organization of the center spindle by associating with polymerized microtubules. Survivin 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. Survivin may counteract a default induction of apoptosis in G2/M phase. The acetylated form of Survivin represses STAT3 transactivation of target gene promoters. Survivin may play a role in neoplasia. Survivin is an inhibitor of CASP3 and CASP7. Isoform 2 and isoform 3 of Survivin 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.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

試験プラットフォーム

Microplate

製品の特性

特記事項

保存方法

Store at +4°C. Please refer to protocols.

内容	1 x 96 tests
10X Human Survivin Capture Antibody	1 x 600µl
10X Human Survivin Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 5BI	1 x 6ml
Human Survivin Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent 75BP	1 x 20ml
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

機能

Component of the chromosomal passenger complex (CPC), a complex that acts as a key regulator of mitosis. The CPC complex has essential functions at the centromere in ensuring correct chromosome alignment and segregation and is required for chromatin-induced microtubule stabilization and spindle assembly. 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 play a role in neoplasia. May counteract a default induction of apoptosis in G2/M phase. Inhibitor of caspase-3 and caspase-7. 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.

組織特異性

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.

配列類似性

Belongs to the IAP family. Contains 1 BIR repeat.

発生段階

Expression is cell cycle-dependent and peaks at mitosis.

ドメイン

The BIR repeat is necessary and sufficient for HBXIP binding.

翻訳後修飾

Ubiquitination is required for centrosomal targeting.

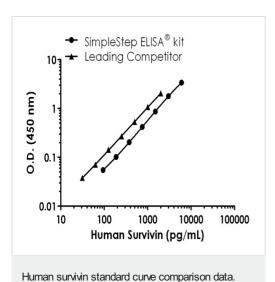
In vitro phosphorylation at Thr-117 by AURKB/STK12 prevents interaction with INCENP and

localization to mitotic chromosomes.

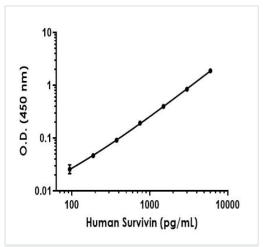
細胞内局在

Cytoplasm. Nucleus. Chromosome. Chromosome > centromere. Cytoplasm > cytoskeleton > spindle. Localizes on chromosome arms and inner centromeres from prophase through metaphase and then transferring to the spindle midzone and midbody from anaphase through

画像

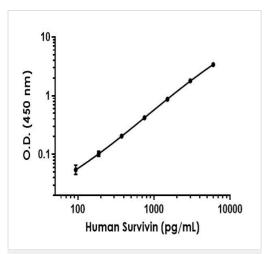


Standard curve comparison between human survivin SimpleStep ${\sf ELISA}^{\circledR} \ \ {\sf kit} \ \ {\sf and} \ \ {\sf traditional} \ \ {\sf ELISA} \ \ {\sf kit} \ \ {\sf from} \ \ {\sf leading} \ \ {\sf competitor}.$ SimpleStep ELISA kit shows comparable sensitivity.

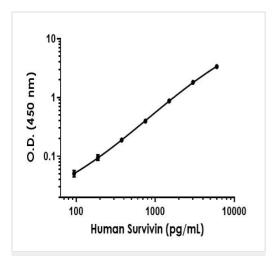


Example of human Survivin standard curve in Sample Diluent 75BP.

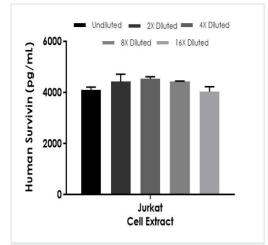
Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.



Example of human Survivin standard curve in Sample Diluent NS.



Example of human Survivin standard curve in 1X Cell Extraction Buffer PTR.



Interpolated concentrations of native Survivin in Jurkat cell extract samples based on a 250 $\mu g/mL$ extract load.

Background-subtracted data values (mean +/- SD) are graphed.

Raw data values are shown in the table. Background-subtracted data values (mean +/- SD) are graphed.

The concentrations of Survivin were measured in duplicate and interpolated from the Survivin standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Survivin concentration was determined to be 4,307.66 pg/mL in Jurkat cell extract.

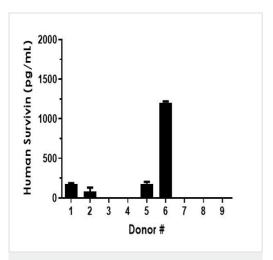
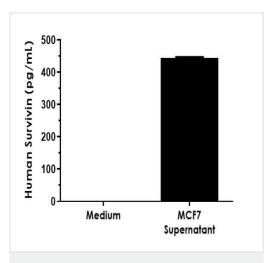


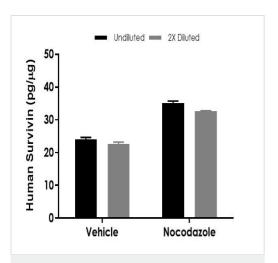
Figure 5. Survivin concentrations in 10 individual Human serum donors. Two fold diluted serum samples from 10 apparently healthy male donors were measured using this kit. Interpolated data values corrected for sample dilution are graphed in pg of Survivin per mL of serum (mean +/- SD, n=3).

Survivin concentrations in 10 individual Human serum donors.



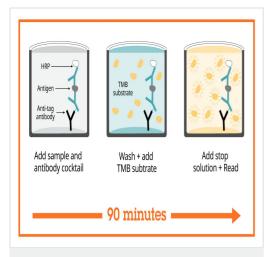
 $\label{lem:comparison} \mbox{Comparison of Survivin concentrations in media and $$MCF7$ cell supernatants. }$

Figure 6. Comparison of Survivin concentrations in media and MCF7 cell supernatants. MCF7 cells were grown in 10F HGDMEM medium and Survivin concentrations were measured in undiluted cell culture supernatant (SN) sample and the 10F HGDMEM medium using this kit. Interpolated data values are graphed (mean +/- SD, n=2). Note that no detectable Survivin concentrations in growth medium were observed.



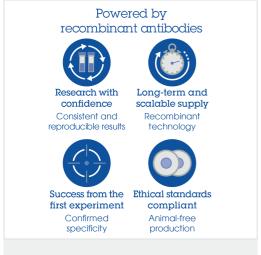
Comparison of Survivin concentrations in control and nocodazole treated HeLa cells.

Figure 7. Comparison of Survivin concentrations in control and nocodazole treated HeLa cells. HeLa cells were grown in 10F HGDMEM medium for 17 hours in the presence of 200 ng/mL nocodazole or drug's vehicle (DMSO). Survivin concentrations were measured in cell extracts diluted to 125 and 62.5 μ g/mL using this kit. Interpolated data values expressed in pg Survivin per \Box g of cell extract are graphed (mean +/- SD, n=2).



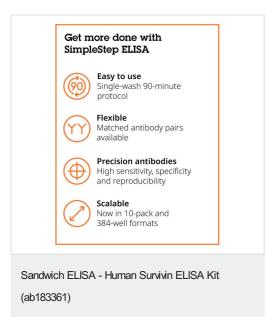
Sandwich ELISA - Human Survivin ELISA Kit (ab183361)

SimpleStep ELISA technology allows the formation of the antibodyantigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



Sandwich ELISA - Human Survivin ELISA Kit (ab183361)

To learn more about the advantages of recombinant antibodies see **here**.



To learn more about the advantages of SimpleStep ELISA[®] kits see **here**.

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