

Mouse Survivin ELISA Kit (Birc5) ab202401

Recombinant SimpleStep ELISA<sup>®</sup>

5 Images

Overview

Product name Mouse Survivin ELISA Kit (Birc5)

Detection method Colorimetric

Precision Intra-assay

Sample	n	Mean	SD	CV%
NIH/3T3	5			3.1%

Inter-assay

Sample	n	Mean	SD	CV%
NIH/3T3	3			13.1%

Sample type Cell culture supernatant, Serum, Cell culture extracts, Tissue Extracts, Hep Plasma, Cit plasma

Assay type Sandwich (quantitative)

Sensitivity 9 pg/ml

Range 93.75 pg/ml - 6000 pg/ml

Recovery Sample specific recovery

Sample type	Average %	Range
Serum	177	172.5% - 181.7%
Cell culture media	133.3	122.5% - 149.8%
Hep Plasma	112.3	105.9% - 121.4%
Cit plasma	90	85.4% - 98.3%

Assay time 1h 30m

Assay duration One step assay

Species reactivity **Reacts with:** Mouse

Product overview

Mouse Survivin ELISA Kit (Birc5) (ab202401) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of Survivin (Birc5) protein in cell culture extracts, cell culture supernatant, cit plasma, hep plasma, serum, and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse Survivin (Birc5) with 9 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 (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes

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 may be 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.

Platform

Microplate (12 x 8 well strips)

Properties

Storage instructions

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

Components	1 x 96 tests
10X Mouse Survivin (Birc5) Capture Antibody	1 x 600µl
10X Mouse Survivin (Birc5) Detector Antibody	1 x 600µl

Components	1 x 96 tests
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 5BC	1 x 6ml
Mouse Survivin (Birc5) Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent 25BP	1 x 20ml
Sample Diluent NBP	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

## Function

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.

## 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.

## Sequence similarities

Belongs to the IAP family.  
Contains 1 BIR repeat.

## Developmental stage

Expression is cell cycle-dependent and peaks at mitosis.

## Domain

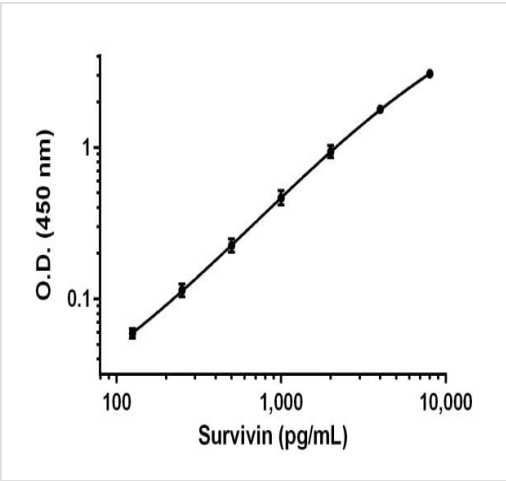
The BIR repeat is necessary and sufficient for HBXIP binding.

## Post-translational modifications

Ubiquitination is required for centrosomal targeting.  
In vitro phosphorylation at Thr-117 by AURKB/STK12 prevents interaction with INCENP and localization to mitotic chromosomes.

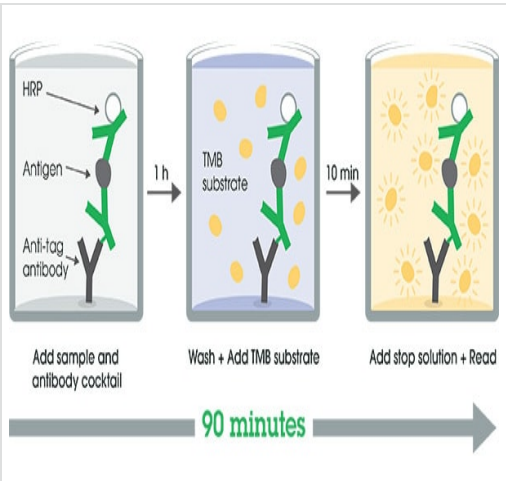
## Cellular localization

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 cytokinesis. Colocalizes with AURKB at mitotic chromosomes.



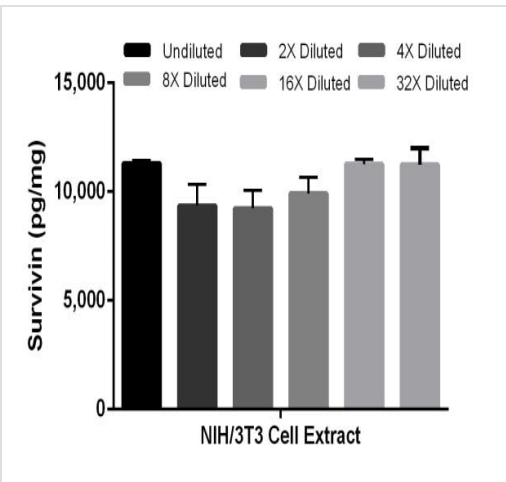
Example of Survivin standard curve prepared in 1X Cell Extraction Buffer PTR.

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



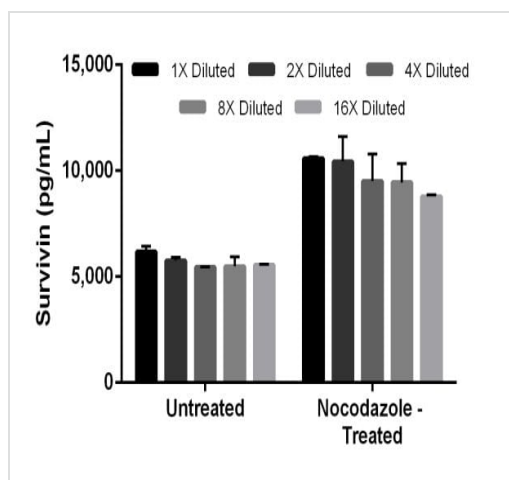
Other - Mouse Survivin ELISA Kit (Birc5) (ab202401)

SimpleStep ELISA technology allows the formation of the antibody-antigen 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.



Interpolated concentrations of Survivin in NIH/3T3 cell extract samples.

The concentrations of Survivin were measured in duplicates, interpolated from the Survivin standard curve and corrected for sample dilution. Note that 1X Diluted extract samples were at 1 mg/mL. The interpolated, dilution factor-corrected values are plotted (mean +/- SD, n=2).



Nocodazole treatment of NIH/3T3 cells stimulates expression of Survivin.

NIH/3T3 cells were cultured in the absence or presence of 200 ng/mL nocodazole for 17 hours. The extracts of these cells (adjusted to the same protein concentration) were measured in dilution series (as indicated) with this kit. Interpolated concentrations of Survivin adjusted for sample dilution are graphed in pg of Survivin per mL of 1X Diluted extract (mean  $\pm$  SD, n = 2).

Powered by recombinant antibodies

**Research with confidence**  
Consistent and reproducible results

**Long-term and scalable supply**  
Recombinant technology

**Success from the first experiment**  
Confirmed specificity

**Ethical standards compliant**  
Animal-free production

Sandwich ELISA - Mouse Survivin ELISA Kit (Birc5)  
(ab202401)

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