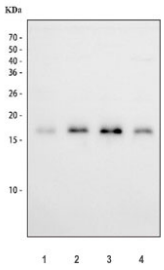
Survivin Antibody / BIRC5 (R30546)

Catalog No.	Formulation	Size
R30546	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	O15392
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Survivin antibody is available for research use only.



Western blot testing of human 1) PC-3, 2) U-2 OS, 3) 293T and 4) A549 cell lysate with Survivin antibody. Predicted molecular weight ~16 kDa.

Description

Survivin antibody detects Baculoviral inhibitor of apoptosis repeat-containing protein 5 (BIRC5), commonly known as Survivin, a multifunctional protein that regulates both cell division and inhibition of apoptosis. The UniProt recommended name is Baculoviral IAP repeat-containing protein 5 (BIRC5). Survivin is one of the smallest members of the inhibitor of apoptosis (IAP) family and plays a critical role in maintaining cellular homeostasis by preventing caspase activation and promoting chromosome segregation during mitosis.

Functionally, Survivin acts as a dual regulator of cell survival and proliferation. It inhibits apoptosis by binding and

suppressing effector caspases, particularly caspase-3 and caspase-7. Concurrently, during mitosis, Survivin localizes to the mitotic spindle and centromeres as part of the chromosomal passenger complex (CPC) alongside Aurora B kinase, INCENP, and Borealin. This complex ensures proper chromosome alignment, kinetochore attachment, and cytokinesis. Through this dual role, BIRC5 maintains genomic stability and supports the survival of rapidly dividing cells.

The BIRC5 gene, located on chromosome 17q25.3, is expressed at high levels during embryonic development but is largely absent in most differentiated adult tissues. In contrast, Survivin is frequently re-expressed in malignant cells, where it enhances tumor growth, therapy resistance, and metastatic potential. Elevated BIRC5 expression has been reported in cancers of the lung, colon, breast, pancreas, and brain, making it a key biomarker for tumor aggressiveness and prognosis. Because of its selective overexpression in cancer and limited presence in normal tissues, Survivin represents a promising therapeutic target for anticancer drug development and immunotherapy.

Research using Survivin antibody has demonstrated its utility in identifying proliferating or anti-apoptotic cells in tumor samples, cultured cell lines, and experimental models. Immunohistochemical staining typically reveals nuclear and cytoplasmic localization corresponding to different functional states of the protein. In apoptosis-resistant cancers, strong Survivin expression correlates with reduced patient survival and resistance to chemotherapeutic agents, highlighting its significance in cancer biology and treatment response.

Survivin antibody is suitable for applications such as immunohistochemistry, immunofluorescence, and related assays to evaluate apoptosis inhibition and mitotic regulation. It provides a valuable tool for exploring cell cycle dynamics, cancer progression, and therapeutic response mechanisms. NSJ Bioreagents offers Survivin antibody reagents optimized for studies of apoptosis regulation, mitotic control, and tumor biomarker analysis.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Survivin antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human Survivin (KKEFEETAKKVRRAIEQLAAMD) was used as the immunogen for this Survivin antibody.

Storage

After reconstitution, the Survivin antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.