

**Mouse Anti-Survivin [D8]: MC0256, MC0256RTU7**

**Intended Use:** For Research Use Only

**Description:** Survivin is a unique member of the inhibitor of apoptosis (IAP) protein family that interferes with post-mitochondrial events including activation of caspases. Survivin regulates the cell cycle and is expressed in most tumors, but it is barely detectable in terminally differentiated normal cells and tissues. Survivin is expressed in the G2/M phase of the cell cycle. At the beginning of mitosis, survivin associates with microtubules of the mitotic spindle in a specific and saturable reaction that is regulated by microtubule dynamics. Disruption of survivin-microtubule interactions results in loss of survivin's anti-apoptotic function and increased caspase-3 activity, a mechanism involved in cell death during mitosis. Nuclear-cytoplasmic shuttling of survivin is controlled by nuclear export signal (NES), which is necessary for the anti-apoptotic function of survivin. Inhibition of the NES makes cells more susceptible to chemotherapy- or radiotherapy-induced apoptosis. The association of survivin expression with tumor progression, but not overall patient survival, has been observed in a variety of malignancies including renal cell carcinoma, ovarian carcinoma, hepatocellular carcinoma, prostate carcinoma and breast carcinoma. However, the link between a poor prognosis and nuclear expression of Survivin in tumors is controversial. A literature review of 19 publications that measured nuclear survivin in different cancer types showed the following: 9 studies concluded that nuclear survivin was associated with an unfavorable prognosis, whereas 5 showed a favorable prognosis. The authors concluded that the nuclear pool of survivin is involved in promoting cell proliferation in most (if not all) cases, whereas the cytoplasmic pool of survivin may participate in controlling cell survival but not cell proliferation.

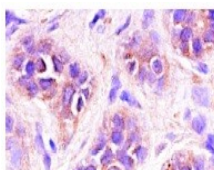
**Specifications**

Clone: D8  
 Source: Mouse  
 Isotype: IgG2a/k  
 Reactivity: Human, mouse, rat  
 Localization: Cytoplasm  
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, ELISA, ICC/IF, IP, WB  
 Package:

Description	Catalog No.	Size
Survivin Concentrated	MC0256	1 ml
Survivin Prediluted	MC0256RTU7	7 ml

**IHC Procedure**

Positive Control Tissue: Colon, colon cancer  
 Concentrated Dilution: 50-200  
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual  
 \* Result should be confirmed by an established diagnostic procedure.



FFPE human breast carcinoma stained with anti-Survivin using DAB

**References:**

- Survivin DEX3 as a biomarker of thyroid cancers: A study at the mRNA and protein level. Waligórska-Stachura J, et al. Oncol Lett 13:2437-2441, 2017.
- Survivin downregulation using siRNA nanoliposomes inhibits cell proliferation and promotes the apoptosis of MHCC-97H hepatic cancer cells: Liu Z, et al. An in vitro and in vivo study. Oncol Lett 13:2723-2730, 2017.

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