

Survivin (EP119)

Rabbit anti-human Survivin Monoclonal Antibody (Clone EP119)

REFERENCES AND PRESENTATIONS¹

- **ready-to-use** (manual or LabVision AutoStainer)
MAD-000655QD-3
MAD-000655QD-7
MAD-000655QD-12
- **Ready-to-use (MD-Stainer)²**
MAD-000655QD-3/V
MAD-000655QD/V
- **concentrated**
MAD-000655Q - 1:50 recommended dilution

COMPOSITION

Anti-human Survivin rabbit monoclonal antibody purified from serum and prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide

INTENDED USE : Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting

CLONE: EP119³

Ig ISOTYPE: IgG

IMMUNOGEN: A synthetic peptide corresponding to residues on the N terminus of human Survivin protein.

SPECIES REACTIVITY: In vitro diagnostics in humans. Not tested in other species

DESCRIPTION AND APPLICATIONS: 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, surviving 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, ovary 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.

IHC POSITIVE CONTROL: Skin, melanoma

VISUALIZATION: Cell nuclei

IHC RECOMMENDED PROCEDURE:

- 4µm thick section should be taken on charged slides; dry overnight at 60°C
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Vitro S.A EDTA buffer pH8⁴ for 20 min at 95°C. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min
- Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)
- Primary antibody: incubate for 30 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)

¹ These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:

- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).

- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).

For different presentations (references / volumes) please contact the supplier.

² For Technical specifications for MD-Stainer, please contact your distributor.

³ Survivin clone EP119 is manufactured using Epitomics's RabMAb® technology under U.S. Patent Nos. 5,675,063 and 7,402,409

⁴ Ref: MAD-004072R/D



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2020-09-21

- Counterstaining with haematoxylin and final mounting of the slide

STORAGE AND STABILITY:  Stored at 2-8°C. Do not freeze.  Once the packaging has been opened it can be stored until the expiration date of the reagent indicated on the label. If the reagent has been stored under other conditions to those indicated in this document, the user must first check its correct performance taking into account the product warranty is no longer valid.

WARNINGS AND PRECAUTIONS:

1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.
2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

SAFETY RECOMMENDATIONS

This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory@vitro.bio.

BIBLIOGRAPHY

1. Ambrosini G, Adida C, Altieri DC. A Novel anti-apoptosis gene, survivin, expressed in cancer and lymphoma. Nat Med; 3: 917-921. 1997.
2. Mahotka C., Wenzel M., Springer E., Gabbert H.E., Gerharz C.D. Survivin-deltaEx3 and survivin-2B: two novel splice variants of the apoptosis inhibitor survivin with different antiapoptotic properties. Cancer Res. 59: 6097-6102. 1999.
3. Badran A., Yoshida A., Ishikawa K., Goi T., Yamaguchi A., Ueda T., Inuzuka M. Identification of a novel splice variant of the human anti-apoptosis gene survivin. Biochem. Biophys. Res. Commun. 314: 902-907. 2004.
4. Zheng W., Ma X., Wei D., Wang T., Ma Y., Yang S. Molecular cloning and bioinformatics analysis of a novel spliced variant of survivin from human breast cancer cells. DNA Seq. 16: 321-328. 2005.
5. Nassar A, Sexton D, Cotsonis G, Cohen C. Survivin expression in breast carcinoma: correlation with apoptosis and prognosis. Appl Immunohistochem Mol Morphol; 16(3): 221-226. 2008.

LABEL AND BOX SYMBOLS

Explanation of the symbols of the product label and box:

	Expiration date
	Temperature limit
	Manufacturer
	Sufficient content for <n> assays
	Catalog number
	Lot code
	Refer to the instructions of use
	Medical product for <i>in vitro</i> diagnosis.
	Material safety data sheet

