

### Recombinant human Survivin Protein

<b>Cat.</b> SURV16-R-10	Purified recombinant Human Survivin Protein	<b>SIZE:</b> 10 ug
<b>Cat.</b> SURV16-R-50	Purified recombinant Human Survivin Protein	<b>SIZE:</b> 50 ug

The inhibitors of apoptosis proteins (IAPs) are a widely expressed gene family of apoptotic inhibitors. The central mechanisms of IAP apoptotic suppression appear to be through direct caspases and pro-caspase inhibition. Recently, a new human gene encoding a structurally and unique IAP designated **Survivin** has been identified. Survivin (human 142 aa, ~16.5 kDa, chromosome 17q25; Mouse TIAP/Survivin 140 aa) contains a single baculovirus IAP repeat and lacks a C-terminal RING finger. An isoform of **survivin, Beta-form**, that has a 23-aa insertion in the BIR-domain has been reported. Mouse survivin is also shown to be alternatively spliced into 3 forms: **Long 140-aa, 121-aa (missing the oiled-coil domain), and 40-aa form** (missing the IAP repeat and coiled domain). Survivin140 and 121-aa inhibits caspase-3 activity. It has the property of oncofetal antigens: highly expressed in less-differentiated embryonic cells or rapidly dividing tumor cell but not in fully differentiated adult tissues. Elevated levels of Survivin are found in human fetal lung, liver, heart, kidney, and gastrointestinal tract. In mouse embryonic tissues, Survivin is detected in most tissues. High level of Survivin was found in most common human cancer, including cancers of the lung, colon, pancreas, prostate, and breast. Expression of Survivin also correlated with the presence of both p53 and bcl-2.

#### Source of Antigen and Antibodies

Human SURV protein (full length; gene accession # BC065497) was expressed as fusion protein (His tag-SURV) in E.coli and purified (>95% with major band at ~21 kDa). Purified human SURV protein is supplied in 50mM NaH<sub>2</sub>PO<sub>4</sub>, 0.3M NaCl, 250mM imidazole and 10mM beta-mercapto-ethanol at a conc. of 1mg/ml (lot specific conc. is provided on the vial). Store at -20°C or below. Avoid frequent freeze and thaw.

**General References:** (1) Ambrosini G et al (1997) Nature Med. 3, 917-921; Altieri DC et al (1994) J Biol. Chem. 269, 3139-3142; Altieri DC et al (1994) Biochem. 33, 13848-13855; Adida C et al (1998) Am. J Pathol. 152, 43-49; Lu C-D et al (1998) Cancer Res. 58, 1808-1812; Li F et al (1998) Nature 396, 580-584; Kobayashi K et al (1998) Gene Accession # AB01389.

**Published papers on ADI's Antibodies to Survivin** (A complete and updated list posted at the web site)

**Ikeguchi M**, 2002, Diag. Mol. Pathol.11:33-40

**Sasaki**, 2002, Acta Neuropathol.

**Guo** , 2002, Blood 99, 3419-3429 **WB, IHC**

**Shankar**, 2001, J. Neurochem. 79, 426, msn cells/**WB**

**Kanwar**, 2001, J Natl Cancer Inst 93: 1541-1552,

**Chantalat L** 2000, Mol Cell, 6, 183-189, **WB,IF**

**Okada E**, 2001, Cancer Lett. 163, 109-116, **WB, IHC,IF**

**Tran, J**, 1999, BBRC 264, 781-788, **WB**

#### **Storage**

**Short-term:** unopened, undiluted vials for less than a week at 4oC.

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder.

\*This product is for *in vitro* research use only.

SURV16-R-10-50

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