

Product Specification Sheet

Livin Antibodies

Cat. # LIVN11-P	Human Livin Control/blocking Peptide	SIZE: 100 ug
Cat. # LIVN11-S	Rabbit Anti-Human Livin antiserum	SIZE: 100 ul
Cat. # LIVN11-A	Rabbit Anti-Human Livin IgG (aff pure)	SIZE: 100 ug
Cat. # LIVN11-C	Purified, recombinant Human Livin protein WB + control	SIZE: 100 ul

Apoptosis or programmed cell death is a fundamental cellular process that is essential for normal tissue development and abnormal growth such as cancer. Apoptosis is driven by specialized proteases known as **caspsases** (Cysteine Aspartase). The inhibitor-of-apoptosis protein (IAPs) by virtue of inhibiting caspase activity has widespread anti-apoptotic potential family. IAPs are characterized by one or more repeats of a highly conserved ~70 amino acid domain termed the baculoviral IAP repeat (BIR). There are at least five human IAP family members, c-IAP1, c-IAP2, XIAP, NAIP, and survivin. A novel member of the IAPs, termed **livin** (also known as **IAP kidney or KIAP; IAP melanoma or MLIAP**) has been identified. Livin gene (chromosome 20q13.3) encodes a two splicing variants (298 aa, alpha form and 280-aa beta form, missing 18-aa from 216-233). It has 25-35% identity with other IAP family members. Both mRNA variants were detected in various transformed cell lines. Despite their very close similarity, the two isoforms have different antiapoptotic properties. Both isoforms have a significant antiapoptotic activity in the Jurkat T cell line after triggering apoptosis via tumor necrosis factor and CD95 receptors.

Source of Antigen and Antibodies

Antigen	15-aa peptide from human Livin (1); Designation (LIVN11-P, control/blocking peptide) conjugated to KLH Epitope location ~ N-terminus
Ab Host/type	Rabbit, Polyclonal unpurified antiserum (#LIVN11-S) and IgG, purified over antigen-agarose (Cat # LIVN11-A)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Human Livin (1-280 aa. ~32 Kda) was expressed as his-tag protein in E. coli and purified >95%. For **western blot +ve control (Cat # LIVN11-C)**, it is supplied in SDS-PAGE sample buffer (reduced). Load ~10 ul/lane to visualize with antibodies (Cat # LIVN11-S or LIVN11-A). Store at -20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **LIVN11-C** solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. This preparation is intended for qualitative purpose and not to serve as standard of known concentration. Do not freeze, thaw, or heat repeatedly

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

Affinity pure IgG

100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1 mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at 20°C and powder at 4°C or -20°C..

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

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder

Recommended Usage

Western Blotting (1:1K-5K for neat serum and 1-10 ug/ml for affinity pure antibody using ECL technique). Livin is ~32 kDa protein (1).

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).

Histochemistry & Immunofluorescence: Not tested. We recommend the use of affinity purified antibody at 5-20 ug/ml.

Specificity & Cross-reactivity

Human LIVN11-P control peptide has no significant sequence homology with mouse or rat livin or other IAPs. Antibody cross-reactivity in various species has not been studied. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at the web site).

General References: (1) Kasof GM (2000) JBC, 276, 3238; Lin JH (2000) BBRC 279, 820; Vucic D (2000) Curr. Biol. 10, 1359

(2) Citations of ADI's Antibodies (see web site for updated list)

ka H, 2003, Am. J. Pathol.,163: 413 – 422, WB, IHC
Tu SP, 2003, Cancer Res., 63: 7724 - 7732., WB IHC

*This product is for In vitro research use only.

LIVN11-S-A-P-C

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