3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

# **Product Information**

## Anti-Livin (C-terminal)

produced in rabbit, affinity isolated antibody

Product Number L9544

## **Product Description**

Anti-Livin (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence at the C-terminal of human Livin/BIRC7 (GenelD: 79444), conjugated to KLH. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Livin (C-terminal) recognizes human Livin/BIRC7. The antibody may be used in various immunochemical techniques including immunoblotting (~39 kDa) and immunoprecipitation. Detection of the Livin band by immunoblotting is specifically inhibited by the immunizing peptide.

Livin is encoded by a gene that is a member of the family of inhibitor of apoptosis proteins (IAP) and contains a single copy of a baculovirus IAP repeat (BIR) as well as a RING-type zinc finger domain. The BIR domain is essential for inhibitory activity and interacts with caspases, while the RING finger domain sometimes enhances antiapoptotic activity but does not inhibit apoptosis alone. Two transcript variants encoding different isoforms have been found for this gene. The two isoforms have different antiapoptotic properties, with isoform  $\alpha$  protecting cells from apoptosis induced by staurosporine and isoform  $\beta$ protecting cells from apoptosis induced by etoposide. The protein is highly expressed in certain cancers and absent in most normal tissues. For example, in testicular germ cell tumors both livin  $\alpha$  and  $\beta$  isoforms were expressed, while they could not be detected in normal testicular tissue.5

## Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

#### **Precautions and Disclaimer**

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

### Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

#### **Product Profile**

 $\frac{Immunoblotting}{2.5-5.0~\mu g/mL} \ a \ working \ antibody \ concentration \ of \\ 2.5-5.0~\mu g/mL \ is \ recommended \ using \ a \ whole \ extract \ of \\ HEK-293T \ cells \ expressing \ human \ Livin.$ 

Immunoprecipitation: a working antibody amount of 5-10  $\mu$ g is recommended using lysate of HEK-293T cells expressing human Livin.

<u>Note</u>: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

#### References

- 1. Ashhab, Y., et al., FEBS Lett., 495, 56-60 (2001).
- Nachmias, B. et al., Cancer Res., 63, 6340-6349 (2003).
- Crnković -Mertens, I. et al., J. Mol. Med., 84, 232-240 (2006).
- Wang, L. et al., Mol. Cancer Ther., 7, 3661-3669 (2008).
- 5. Kempkensteffen, C. et al., *Tumor Biol.*, **29**, 76-82 (2008).

VS,ST,TD,KAA,PHC,MAM 03/19-1