Anti-iASPP antibody, Mouse Monoclonal

Clone LXO49.3, purified from hybridoma cell culture

A4605

Product Description

Anti-iASPP (mouse IgG1 isotype) is derived from the hybridoma LXO49.3 produced by the fusion of mouse myeloma cells (SP2/0 cells) and splenocytes from BALB/c mice immunized with a recombinant protein encoding residues corresponding to a fragment of human iASPP.[1] The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Cat. No. ISO2.

Anti-iASPP recognizes human[1] and mouse iASPP. The antibody may be used in immunoblotting (~100 kDa),[1] immunocytochemistry,[1] and immunoprecipitation.[1]

The ASPP family of proteins contains three members, ASSP1, ASSP2, and iASPP, which interact via their C-terminal region with p53 and modulate its activity. These C-terminal regions contain a proline-rich region, four ankyrin repeats, and an SH3 domain.[2-5] The interaction of ASPP proteins with p53 is mediated through the ankyrin repeats and SH3 domain. While ASPP1 and ASPP2 enhance the ability of p53 to induce apoptosis, iASPP inhibits p53-mediated cell death. ASPP1 and ASPP2 enhance the ability of p53 to induce apoptosis by causing p53 to specifically up-regulate the expression of pro-apoptotic genes rather than those involved in cell cycle arrest.

iASPP (also known as Rel-associated inhibitor, RAI) interacts and inhibits NFκB p65 RelA. ASPP1 and ASSP2 can induce apoptosis independently of p53 by binding to p63 and p73 *in vitro* and *in vivo*. ASPP1 and ASPP2 stimulate the transactivation function of p63 and p73 on promoters of different genes such as Bax, PIG3 and PUMA, but not Mdm2 or $p21^{WAF-1/CIP1}$.[2-5] iASPP exists as a 100 kDa form (iASPP) and as a 70 kDa form (iASPP/RAI). Both isoforms bind p53 and thus regulate p53 induced apoptosis. However, their cellular distribution is different, iASPP is found both in the nucleus and cytoplasm, while iASPP/RAI is mainly cytosolic.[1]

Reagent

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

Antibody concentration: ~2 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, or storage in "frost-free" freezers, 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

Immunoblotting: a working concentration of 0.1-0.2 µg/mL is determined using total cell extract of human osteogenic sarcoma (U-2-OS).

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

References

1. Slee, E., et al., *Oncogene*, **23**, 9007-9016 (2004).
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3. Fogal, V., et al., *Cell Death Diff.*, **12**, 369-376 (2005).
4. Ze-Jun, L., et al., Biochem. Biophys. Acta, **1756**, 77-80 (2005).
5. Bergamaschi, D., et al., *Mol. Cell. Biol.*, **24**, 1341-1350 (2004).

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