

ASPP1 (LX011): sc-53903

BACKGROUND

ASPP proteins interact with p53 and are responsible for enhancing p53-induced apoptosis but not cell cycle arrest. Inhibition of endogenous ASPP1 (PPP1R13B) function inhibits the apoptotic function of endogenous p53 in response to apoptotic stimuli. ASPP1 amplifies DNA binding and transactivation function of p53 on the promoters of proapoptotic genes *in vivo*. Expression of ASPP1 is often downregulated in human breast carcinomas expressing wildtype p53, but not in those expressing mutant p53. This research indicates that ASPP1 regulates the tumor suppression function of p53 *in vivo*. ASPP1 is predominantly a cytoplasmic protein, although some fraction of the polypeptide is nuclear. Defects in PPP1R13B, the gene which encodes ASPP1, may be a cause of breast cancers. The deduced ASPP1 protein contains 1,090 amino acid residues.

REFERENCES

1. Nagase, T., et al. 1999. Prediction of the coding sequences of unidentified human genes. XI. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 5: 277-286.
2. Samuels-Lev, Y., et al. 2001. ASPP proteins specifically stimulate the apoptotic function of p53. Mol. Cell 8: 781-794.
3. Bergamaschi, D., et al. 2004. ASPP1 and ASPP2: common activators of p53 family members. Mol. Cell. Biol. 24: 1341-1350.
4. Bergamaschi, D., et al. 2005. Mdm2 and mdmX prevent ASPP1 and ASPP2 from stimulating p53 without targeting p53 for degradation. Oncogene 24: 3836-3841.

CHROMOSOMAL LOCATION

Genetic locus: PPP1R13B (human) mapping to 14q32.33; Ppp1r13b (mouse) mapping to 12 F1.

SOURCE

ASPP1 (LX011) is a mouse monoclonal antibody raised against a recombinant protein containing the N-terminal region of ASPP1 human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ASPP1 (LX011) is available conjugated to agarose (sc-53903 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53903 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53903 PE), fluorescein (sc-53903 FITC), Alexa Fluor[®] 488 (sc-53903 AF488), Alexa Fluor[®] 546 (sc-53903 AF546), Alexa Fluor[®] 594 (sc-53903 AF594) or Alexa Fluor[®] 647 (sc-53903 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-53903 AF680) or Alexa Fluor[®] 790 (sc-53903 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

ASPP1 (LX011) is recommended for detection of ASPP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for ASPP1 siRNA (h): sc-60214, ASPP1 siRNA (m): sc-60215, ASPP1 shRNA Plasmid (h): sc-60214-SH, ASPP1 shRNA Plasmid (m): sc-60215-SH, ASPP1 shRNA (h) Lentiviral Particles: sc-60214-V and ASPP1 shRNA (m) Lentiviral Particles: sc-60215-V.

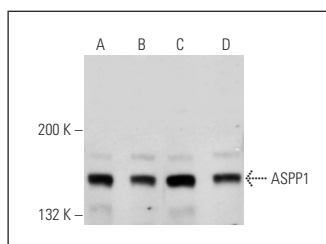
Molecular Weight of ASPP1: 119 kDa.

Positive Controls: Saos-2 cell lysate: sc-2235, WI-38 whole cell lysate: sc-364260 or Caki-1 cell lysate: sc-2224.

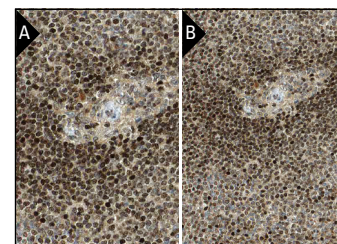
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ASPP1 (LX011): sc-53903. Western blot analysis of ASPP1 expression in WI-38 (A,C) and Saos-2 (B,D) whole cell lysates under reducing (A,B) and non-reducing (C,D) conditions.



ASPP1 (LX011): sc-53903. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing nuclear and cytoplasmic staining of cells in red and white pulps at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Liu, W.K., et al. 2010. Expression pattern of the ASPP family members in endometrial endometrioid adenocarcinoma. *Onkologie* 33: 500-503.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.