SANTA CRUZ BIOTECHNOLOGY, INC.

XAP2 (35-2): sc-59730

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Aryl hydrocarbon receptor (AhR), also designated dioxin receptor (DR), a ligand-activated transcription factor, becomes activated upon binding of dioxins or structurally related forms of xenobiotics. Upon ligand binding, AhR translocates from the cytoplasm to the nucleus where it complexes with Arnt to form a DNA binding heterodimer. This complex activates transcription of target genes involved in xenobiotic metabolism. Until ligand binding occurs, AhR remains latent in the cytoplasm, which is maintained by its association with the molecular chaperones HSP 90, the hepatitis B virus X-associated protein (XAP2, also designated AIP and ARA9) and the heat shock protein (p23). XAP2, a ubiquitously expressed protein, binds to HSP 90 and AhR through a highly conserved carboxy-terminal tetraticopeptide repeat domain. XAP2 participates in stabilizing AhR as well as enhancing the cytoplasmic localization of the receptor. It may also be involved in regulating the degradation of AhR.

REFERENCES

1. Meyer, B.K., et al. 1998. Hepatitis B virus X-associated protein 2 is a subunit of the unliganded Aryl hydrocarbon receptor core complex and exhibits transcriptional enhancer activity. Mol. Cell. Biol. 18: 978-988.
2. Carver, L.A., et al. 1998. Characterization of the Ah receptor-associated protein, ARA9. J. Biol. Chem. 273: 33580-33587.
3. Kazlauskas, A., et al. 2000. The immunophilin-like protein XAP2 regulates ubiquitination and subcellular localization of the dioxin receptor. J. Biol. Chem. 275: 41317-41324.
4. Kazlauskas, A., et al. 2002. Two distinct regions of the immunophilin-like protein XAP2 regulate dioxin receptor function and interaction with HSP 90. J. Biol. Chem. 277: 11795-11801.
5. Lees, M.J., et al. 2002. Effect of ARA9 on dioxin receptor mediated transcription. Toxicology 181-182: 143-146.

CHROMOSOMAL LOCATION

Genetic locus: AIP (human) mapping to 11q13.2; Aip (mouse) mapping to 19 A.

SOURCE

XAP2 (35-2) is a mouse monoclonal antibody raised against full length XAP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

XAP2 (35-2) is available conjugated to agarose (sc-59730 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-59730 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-59730 PE), fluorescein (sc-59730 FITC), Alexa Fluor® 488 (sc-59730 AF488), Alexa Fluor® 546 (sc-59730 AF546), Alexa Fluor® 594 (sc-59730 AF594) or Alexa Fluor® 647 (sc-59730 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-59730 AF680) or Alexa Fluor® 790 (sc-59730 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

XAP2 (35-2) is recommended for detection of XAP2 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for XAP2 siRNA (h): sc-63334, XAP2 siRNA (m): sc-63335, XAP2 siRNA (r): sc-270269, XAP2 shRNA Plasmid (h): sc-63334-SH, XAP2 shRNA Plasmid (m): sc-63335-SH, XAP2 shRNA Plasmid (r): sc-270269-SH, XAP2 shRNA (h) Lentiviral Particles: sc-63334-V, XAP2 shRNA (m) Lentiviral Particles: sc-63335-V and XAP2 shRNA (r) Lentiviral Particles: sc-270269-V.

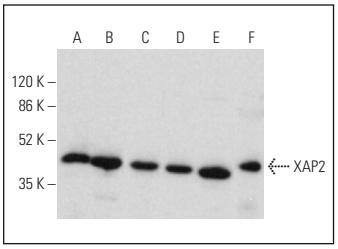
Molecular Weight of XAP2: 38 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate:sc-2227 or NIH/3T3 whole cell lysate: sc-2210.

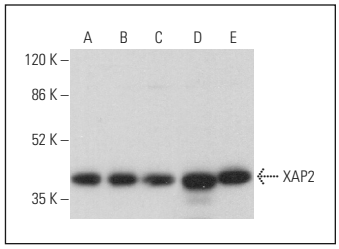
RECOMMENDED SUPPORT REAGENTS

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).

DATA



XAP2 (35-2): sc-59730. Western blot analysis of XAP2 expression in c4 (**A**), Hep G2 (**B**), NIH/3T3 (**C**), EOC 20 (**D**) and HEL 92.1.7 (**E**) whole cell lysates and rat testis tissue extract (**F**).



XAP2 (35-2): sc-59730. Western blot analysis of XAP2 expression in c4 (**A**), F9 (**B**), HeLa (**C**), DU 145 (**D**) and AT3B-1 (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Vargiolu, M., et al. 2009. The tyrosine kinase receptor RET interacts *in vivo* with Aryl hydrocarbon receptor-interacting protein to alter survivin availability. J. Clin. Endocrinol. Metab. 94: 2571-2578.

STORAGE

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

RESEARCH USE

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