SANTA CRUZ BIOTECHNOLOGY, INC.

ASC-1 (F-7): sc-376916

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Activating signal co-integrator-1 (ASC-1), originally identified as TRIP4, is a transcriptional co-activator of nuclear receptors that associates with specific components of the RNA polymerase II complex and binds the basal transcription factors TBP and TFIIA. ASC-1 functions with the transcription integrators SRC-1 and CBP/p300 through its zinc finger motif and is dependent on their ligand-dependent transactivation domain, AF2. Endogenous ASC-1 in HeLa cells is predominantly a nuclear protein. Under conditions of serum starvation, ASC-1 localizes to the cytoplasm. However, when serum starved in the presence of ligand of coexpressed CBP or SRC-1, ASC-1 remains in the nucleus. This behavior of ASC-1 suggests that it may play an important role in establishing distinct co-activator complexes under different cellular conditions.

REFERENCES

1. Lee, J.W., et al. 1995. Two classes of proteins dependent on either the presence or absence of thyroid hormone for interaction with the thyroid hormone receptor. Mol. Endocrinol. 9: 243-254.
2. Mangelsdorf, D.J., et al. 1995. The nuclear receptor superfamily: the second decade. Cell 83: 835-839.

CHROMOSOMAL LOCATION

Genetic locus: TRIP4 (human) mapping to 15q22.31; Trip4 (mouse) mapping to 9 C.

SOURCE

ASC-1 (F-7) is a mouse monoclonal antibody raised against amino acids 282-581 mapping at the C-terminus of ASC-1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376916 X, 200 µg/0.1 ml.

APPLICATIONS

ASC-1 (F-7) is recommended for detection of ASC-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ASC-1 siRNA (h): sc-39159, ASC-1 siRNA (m): sc-38808, ASC-1 shRNA Plasmid (h): sc-39159-SH, ASC-1 shRNA Plasmid (m): sc-38808-SH, ASC-1 shRNA (h) Lentiviral Particles: sc-39159-V and ASC-1 shRNA (m) Lentiviral Particles: sc-38808-V.

ASC-1 (F-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

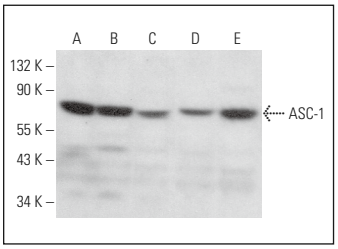
Molecular Weight of ASC-1: 68 kDa.

Positive Controls: ASC-1 (m): 293T Lysate: sc-118583, HEL 92.1.7 cell lysate: sc-2270 or K-562 whole cell lysate: sc-2203.

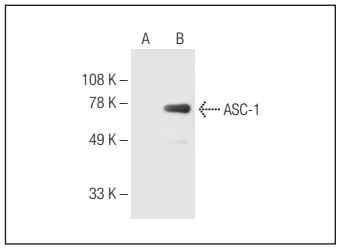
RECOMMENDED SUPPORT REAGENTS

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.

DATA



ASC-1 (F-7): sc-376916. Western blot analysis of ASC-1 expression in K-562 (**A**), HEL 92.1.7 (**B**), NAMALWA (**C**), WEHI-231 (**D**) and WI-38 (**E**) whole cell lysates.



ASC-1 (F-7): sc-376916. Western blot analysis of ASC-1 expression in non-transfected: sc-117752 (**A**) and mouse ASC-1 transfected: sc-118583 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wu, X., et al. 2018. NLRP3 inflammasome mediates chronic intermittent hypoxia-induced renal injury implication of the microRNA-155/FOXO3a signaling pathway. J. Cell. Physiol. 233: 9404-9415.
2. Lopes de Oliveira, G.A., et al. 2019. Preventive effect of bergenin against the development of TNBS-induced acute colitis in rats is associated with inflammatory mediators inhibition and NLRP3/ASC inflammasome signaling pathways. Chem. Biol. Interact. 297: 25-33.
3. Huang, X., et al. 2019. VSIG4 mediates transcriptional inhibition of Nlrp3 and Il-1β in macrophages. Sci. Adv. 5: eaau7426.
4. Cui, S., et al. 2020. CD1d1 intrinsic signaling in macrophages controls NLRP3 inflammasome expression during inflammation. Sci. Adv. 6: eaaz7290.
5. Zhao, J., et al. 2021. Bruton's tyrosine kinase regulates macrophage-induced inflammation in the diabetic kidney via NLRP3 inflammasome activation. Int. J. Mol. Med. 48: 177.
6. Jia, J., et al. 2023. Extended DNA threading through a dual-engine motor module of the activating signal co-integrator 1 complex. Nat. Commun. 14: 1886.

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.