SANTA CRUZ BIOTECHNOLOGY, INC.

ASC-1 (F-8): sc-365202

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Activating signal cointegrator-1 (ASC-1, originally identified as TRIP4) is a transcriptional coactivator 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 or 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 coactivator 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-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 489-517 within an internal region of ASC-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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-365202 X, 200 µg/0.1 ml.

ASC-1 (F-8) is available conjugated to agarose (sc-365202 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365202 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365202 PE), fluorescein (sc-365202 FITC), Alexa Fluor® 488 (sc-365202 AF488), Alexa Fluor® 546 (sc-365202 AF546), Alexa Fluor® 594 (sc-365202 AF594) or Alexa Fluor® 647 (sc-365202 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365202 AF680) or Alexa Fluor® 790 (sc-365202 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365202 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

ASC-1 (F-8) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ASC-1 (F-8) is also recommended for detection of ASC-1 in additional species, including equine, canine and porcine.

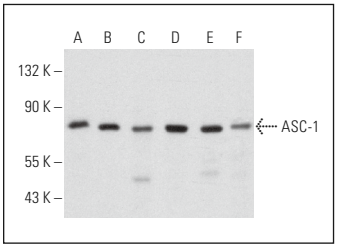
Suitable for use as control antibody for ASC-1 siRNA (h): sc-39159, ASC-1 siRNA (m): sc-38808, ASC-1 shRNA Plasmid (h): sc-39159-SH, ASC-1 shRNA Plasmid (m): sc-38808-SH, ASC-1 shRNA (h) Lentiviral Particles: sc-39159-V and ASC-1 shRNA (m) Lentiviral Particles: sc-38808-V.

ASC-1 (F-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

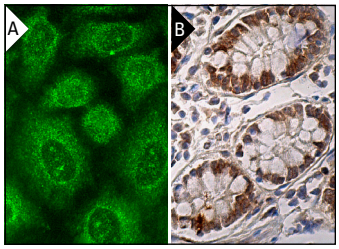
Molecular Weight of ASC-1: 68 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or RAW 264.7 whole cell lysate: sc-2211.

DATA



ASC-1 (F-8): sc-365202. Western blot analysis of ASC-1 expression in HeLa (**A**), U-251-MG (**B**), HL-60 (**C**), NIH/3T3 (**D**), RAW 264.7 (**E**) and NRK (**F**) whole cell lysates.



ASC-1 (F-8): sc-365202. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic or nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic and nuclear staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Ahmad, F., et al. 2016. Phosphodiesterase 3B (PDE3B) regulates NLRP3 inflammasome in adipose tissue. Sci. Rep. 6: 28056.
2. Chen, L., et al. 2020. Perillaldehyde: a promising antifungal agent to treat oropharyngeal candidiasis. Biochem. Pharmacol. 180: 114201.
3. Li, W., et al. 2021. TRIP4 transcriptionally activates DDIT4 and subsequent mTOR signaling to promote glioma progression. Free Radic. Biol. Med. 177: 31-47.
4. Purbasari, B., et al. 2022. Retinoic acid attenuates nuclear factor κB mediated induction of NLRP3 inflammasome. Pharmacol. Rep. 74: 189-203.

RESEARCH USE

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