SANTA CRUZ BIOTECHNOLOGY, INC.

52 kDa Ro/SSA (D-12): sc-25351

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Ro autoantigens are of clinical significance because antibodies directed against them are found in most patients with primary Sjogren syndrome, subacute cutaneous lupus erythematosus (SLE), neonatal lupus erythematosus, ANA-negative lupus erythematosus and systemic lupus erythematosus-like disease secondary to homozygous C2 or C4 complement deficiency. Ro/SSA is a ribonucleoprotein that binds to autoantibodies in 35 to 50% of patients with SLE and in up to 97% of patients with Sjogren syndrome. The Ro/SSA particle consists of a single immunoreactive protein noncovalently bound with one of four small RNA molecules. Most anti-Ro/SSA-positive sera antibodies detect not only the main protein, but also a smaller Ro/SSA protein. The genes which encode the smaller and larger proteins map to human chromosomes 11p15.4 and 1q31, respectively. La/SSB is an autoimmune RNA-binding protein that plays a role in the transcription of RNA polymerase III was originally defined by its reactivity with autoantibodies from patients with Sjogren syndrome and SLE.

CHROMOSOMAL LOCATION

Genetic locus: TRIM21 (human) mapping to 11p15.4.

SOURCE

52 kDa Ro/SSA (D-12) is a mouse monoclonal antibody raised against amino acids 141-280 of 52 kDa Ro/SSA 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.

52 kDa Ro/SSA (D-12) is available conjugated to agarose (sc-25351 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25351 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25351 PE), fluorescein (sc-25351 FITC), Alexa Fluor® 488 (sc-25351 AF488), Alexa Fluor® 546 (sc-25351 AF546), Alexa Fluor® 594 (sc-25351 AF594) or Alexa Fluor® 647 (sc-25351 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25351 AF680) or Alexa Fluor® 790 (sc-25351 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

52 kDa Ro/SSA (D-12) is recommended for detection of 52 kDa Ro/SSA of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), 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).

Suitable for use as control antibody for 52 kDa Ro/SSA siRNA (h): sc-40917, 52 kDa Ro/SSA shRNA Plasmid (h): sc-40917-SH and 52 kDa Ro/SSA shRNA (h) Lentiviral Particles: sc-40917-V.

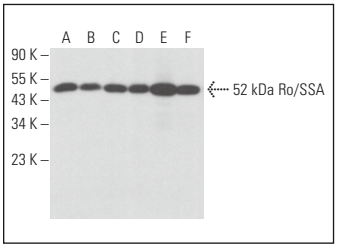
Molecular Weight of 52 kDa Ro/SSA: 52 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, SUP-T1 whole cell lysate: sc-364796 or HEL 92.1.7 cell lysate: sc-2270.

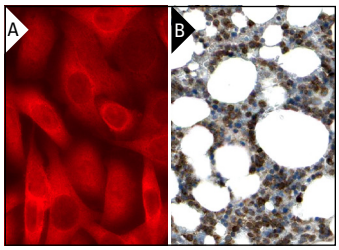
STORAGE

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

DATA



52 kDa Ro/SSA (D-12): sc-25351. Western blot analysis of 52 kDa Ro/SSA expression in CCRF-CEM (**A**), HL-60 (**B**), HUV-EC-C (**C**), HEL 92.1.7 (**D**), THP-1 (**E**) and SUP-T1 (**F**) whole cell lysates.



52 kDa Ro/SSA (D-12) PE: sc-25351 PE. Direct immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic and membrane localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**A**). 52 kDa Ro/SSA (D-12): sc-25351. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bone marrow tissue showing nuclear and cytoplasmic staining of bone marrow poietic cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Hsu, S., et al. 2005. Inhibition of autoantigen expression by (-)-epigallocatechin-3-gallate (the major constituent of green tea) in normal human cells. J. Pharmacol. Exp. Ther. 315: 805-811.
2. Zhao, Z., et al. 2020. TRIM21 overexpression promotes tumor progression by regulating cell proliferation, cell migration and cell senescence in human glioma. Am. J. Cancer Res. 10: 114-130.
3. Isono, T., et al. 2021. SS-A52 antigen expression in thymic carcinoma accompanied with Sjögren syndrome: A case report. Medicine 100: e24491.
4. Cao, X., et al. 2021. Opposing roles of E3 ligases TRIM23 and TRIM21 in regulation of ion channel ANO1 protein levels. J. Biol. Chem. 296: 100738.
5. Song, Y., et al. 2021. E3 ubiquitin ligase TRIM21 restricts hepatitis B virus replication by targeting HBx for proteasomal degradation. Antiviral Res. 192: 105107.
6. Li, X., et al. 2021. LncTRPM2-AS inhibits TRIM21-mediated TRPM2 ubiquitination and prevents autophagy-induced apoptosis of macrophages in asthma. Cell Death Dis. 12: 1153.
7. Gomez-Bañuelos, E., et al. 2022. Alternative exon usage in TRIM21 determines the antigenicity of Ro52/TRIM21 in systemic lupus erythematosus. JCI Insight 7: e163795.
8. Sarri, N., et al. 2023. The E3 ubiquitin ligase TRIM21 regulates basal levels of PDGFRβ. Int. J. Mol. Sci. 24: 7782.

RESEARCH USE

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