SANTA CRUZ BIOTECHNOLOGY, INC.

La/SSB (B-8): sc-166274

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

XBACKGROUND

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 have antibodies not only against the immunoreactive protein, but also against an Ro/SSA protein. La/SSB is an autoimmune RNA-binding protein that plays a role in the transcription of RNA polymerase III. It was originally defined by its reactivity with autoantibodies from patients with Sjogren syndrome and SLE.

REFERENCES

1. Chambers, J.C., et al. 1988. Genomic structure and amino acid sequence domains of the human La autoantigen. J. Biol. Chem. 263: 18043-18051.
2. Itoh, K., et al. 1991. Protein heterogeneity in the human Ro/SSA ribonucleoproteins. The 52 and 60 kDa Ro/SSA autoantigens are encoded by separate genes. J. Clin. Invest. 87: 177-186.
3. Frank, M.B., et al. 1993. The mapping of the human 52 kDa Ro/SSA autoantigen gene to human chromosome 11, and its polymorphisms. Am. J. Hum. Genet. 52: 183-191.
4. Chan, E.K., et al. 1994. Human 60-kDa SS-A/Ro ribonucleoprotein autoantigen gene (SSA2) localized to 1q31 by fluorescence *in situ* hybridization. Genomics 23: 298-300.

CHROMOSOMAL LOCATION

Genetic locus: SSB (human) mapping to 2q31.1; Ssb (mouse) mapping to 2 C2.

SOURCE

La/SSB (B-8) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of La/SSB 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.

La/SSB (B-8) is available conjugated to agarose (sc-166274 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166274 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166274 PE), fluorescein (sc-166274 FITC), Alexa Fluor® 488 (sc-166274 AF488), Alexa Fluor® 546 (sc-166274 AF546), Alexa Fluor® 594 (sc-166274 AF594) or Alexa Fluor® 647 (sc-166274 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166274 AF680) or Alexa Fluor® 790 (sc-166274 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

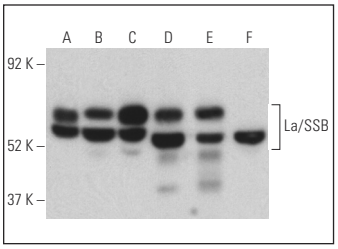
La/SSB (B-8) is recommended for detection of La/SSB of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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).

Suitable for use as control antibody for La/SSB siRNA (h): sc-40915, La/SSB siRNA (m): sc-40916, La/SSB siRNA (r): sc-270064, La/SSB shRNA Plasmid (h): sc-40915-SH, La/SSB shRNA Plasmid (m): sc-40916-SH, La/SSB shRNA Plasmid (r): sc-270064-SH, La/SSB shRNA (h) Lentiviral Particles: sc-40915-V, La/SSB shRNA (m) Lentiviral Particles: sc-40916-V and La/SSB shRNA (r) Lentiviral Particles: sc-270064-V.

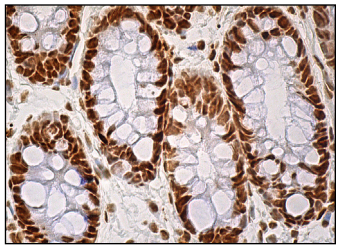
Molecular Weight of La/SSB: 48 kDa.

Positive Controls: Ramos cell lysate: sc-2216, Raji whole cell lysate: sc-364236 or NAMALWA cell lysate: sc-2234.

DATA



La/SSB (B-8): sc-166274. Western blot analysis of La/SSB expression in NAMALWA (**A**), Raji (**B**), Ramos (**C**), F9 (**D**) and WEHI-231 (**E**) whole cell lysates and rat testis tissue extract (**F**). Detection reagent used: m-IgG_1 BP-HRP: sc-525408.



La/SSB (B-8): sc-166274. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Ahmed, W., et al. 2014. Epstein-Barr virus-encoded small RNAs (EBERs) are present in fractions related to exosomes released by EBV-transformed cells. PLoS ONE 9: e99163.
2. Rodríguez-Rodríguez, M., et al. 2017. Activation of peptidylarginine deiminase in the salivary glands of Balb/c mice drives the citrullination of Ro and La ribonucleoproteins. J. Immunol. Res. 2017: 8959687.
3. Zheng, Q., et al. 2017. Autoantigen La regulates microRNA processing from stem-loop precursors by association with DGCR8. Biochemistry 56: 6098-6110.
4. Ahmed, W., et al. 2018. Tracking EBV-encoded RNAs (EBERs) from the nucleus to the excreted exosomes of B-lymphocytes. Sci. Rep. 8: 15438.

STORAGE

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