SANTA CRUZ BIOTECHNOLOGY, INC.

La/SSB (312B): sc-80656

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 have antibodies not only against the immunoreactive protein, but also against an Ro/SSA protein. The genes which encode the two proteins map to human chromosomes 11p15.5 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.

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-kD Ro/SSA autoantigen gene to human chromosome 11, and its polymorphisms. Am. J. Hum. Genet. 52: 183-191.

CHROMOSOMAL LOCATION

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

SOURCE

La/SSB (312B) is a mouse monoclonal antibody raised against purified 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 (312B) is available conjugated to agarose (sc-80656 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-80656 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-80656 PE), fluorescein (sc-80656 FITC), Alexa Fluor® 488 (sc-80656 AF488), Alexa Fluor® 546 (sc-80656 AF546), Alexa Fluor® 594 (sc-80656 AF594) or Alexa Fluor® 647 (sc-80656 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-80656 AF680) or Alexa Fluor® 790 (sc-80656 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

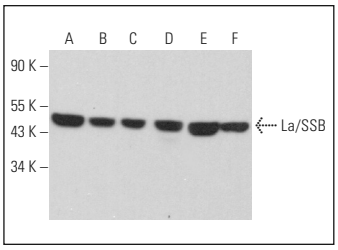
La/SSB (312B) is recommended for detection of La/SSB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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.

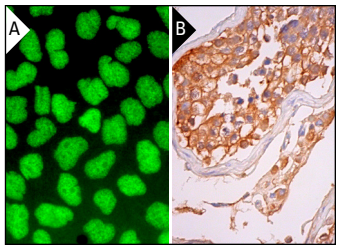
Molecular Weight of La/SSB: 48 kDa.

Positive Controls: Ramos cell lysate: sc-2216, HeLa whole cell lysate: sc-2200 or Raji whole cell lysate: sc-364236.

DATA



La/SSB (312B): sc-80656. Western blot analysis of La/SSB expression in Ramos (**A**), HeLa (**B**), HUV-EC-C (**C**), MDA-MB-231 (**D**), Raji (**E**) and Jurkat (**F**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



La/SSB (312B): sc-80656. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic, membrane and nuclear staining of cells in seminiferous ducts (**B**).

SELECT PRODUCT CITATIONS

1. Burbelo, P.D., et al. 2009. Sensitive and robust luminescent profiling of anti-La and other autoantibodies in Sjogren's syndrome. Autoimmunity 42: 515-524.
2. Nitta, T., et al. 2011. The cellular protein La functions in enhancement of virus release through lipid rafts facilitated by murine leukemia virus glycosylated $G_{\alpha\gamma}$. MBio 2: e00341-10.
3. Kim, D.H., et al. 2018. Intracellular interleukin-32γ mediates antiviral activity of cytokines against hepatitis B virus. Nat. Commun. 9: 3284.
4. Kaliatsi, E.G., et al. 2020. Functional and structural aspects of La protein overexpression in lung cancer. J. Mol. Biol. 432: 166712.

RESEARCH USE

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