ELL2 (B-7): sc-515276

SANTA CRUZ® BIOTECHNOLOGY

The Power to Question

BACKGROUND

ELL2 (RNA polymerase II elongation factor ELL2) is a 640 amino acid nuclear protein that belongs to the ELL/occludin family. This family is defined by a highly conserved domain of approximately 100 amino residues found within all eukaryotic occludin proteins and the RNA polymerase II elongation factor ELL. These elongation factors activate elongation by suppressing transient pausing by polymerase at many sites along the DNA and govern its interaction with RNA polymerase II and the ternary elongation complex. ELL2 may also contain a novel type of RNA polymerase II interaction domain that is capable of negatively regulating polymerase activity in promoter-specific transcription initiation *in vitro.*

CHROMOSOMAL LOCATION

Genetic locus: ELL2 (human) mapping to 5q15; Ell2 (mouse) mapping to 13 C1.

SOURCE

ELL2 (B-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 19-36 near the N-terminus of ELL2 of human origin.

PRODUCT

Each vial contains 200 µg IgM 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-515276 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-515276 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

ELL2 (B-7) is recommended for detection of ELL2 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 ELL2 siRNA (h): sc-77259, ELL2 siRNA (m): sc-77260, ELL2 shRNA Plasmid (h): sc-77259-SH, ELL2 shRNA Plasmid (m): sc-77260-SH, ELL2 shRNA (h) Lentiviral Particles: sc-77259-V and ELL2 shRNA (m) Lentiviral Particles: sc-77260-V.

ELL2 (B-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of ELL2: 72 kDa.

Molecular Weight (observed) of ELL2: 88 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HeLa nuclear extract: sc-2120 or MDA-MB-231 cell lysate: sc-2232.

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 L-Agarose: sc-2336 (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
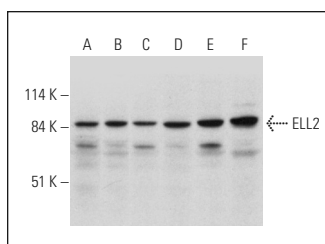
ELL2 (B-7): sc-515276. Western blot analysis of ELL2 expression in ES-2 (**A**), HeLa (**B**), ACHN (**C**), MDA-MB-231 (**D**) and HEK293 (**E**) whole cell lysates and HeLa nuclear extract (**F**).
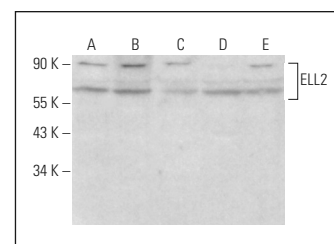
ELL2 (B-7): sc-515276. Western blot analysis of ELL2 expression in HeLa (**A**), JAR (**B**), PC-3 (**C**), K-562 (**D**) and F9 (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chung, C.Y., et al. 2018. Aberrant activation of non-coding RNA targets of transcriptional elongation complexes contributes to TDP-43 toxicity. Nat. Commun. 9: 4406.

2. Guo, H., et al. 2021. NR4A1 regulates expression of immediate early genes, suppressing replication stress in cancer. Mol. Cell 81: 4041-4058.e15.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.