SANTA CRUZ BIOTECHNOLOGY, INC.

ERI-1 (B-10): sc-137089

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Helicase with RNase motif, more commonly designated dicer, cleaves double-stranded RNA (dsRNA) in the RNA interference and small temporal RNA (stRNA) pathways, producing active small RNA components (siRNAs) which target the destruction of RNA and repress gene expression. Human dicer cleaves dsRNA independent of ATP. The 3'-5' exonuclease ERI-1, also known as protein 3'hExo, degrades Histone mRNA after replication and may be involved in the regulation of RNA interference. ERI-1 has a high affinity for the stem-loop structure of replication-dependent Histone pre-mRNAs. It requires the 5'-ACCCA-3' sequence present in stem-loop structure. ERI-1 and a stem-loop binding protein (SLBP) target opposite faces of a unique highly conserved stem-loop RNA scaffold towards the 3' end of Histone mRNA.

CHROMOSOMAL LOCATION

Genetic locus: ERI1 (human) mapping to 8p23.1; Eri1 (mouse) mapping to 8 A4.

SOURCE

ERI-1 (B-10) is a mouse monoclonal antibody raised against amino acids 161-295 mapping within an internal region of ERI-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-137089 X, 200 µg/0.1 ml.

ERI-1 (B-10) is available conjugated to agarose (sc-137089 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-137089 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-137089 PE), fluorescein (sc-137089 FITC), Alexa Fluor® 488 (sc-137089 AF488), Alexa Fluor® 546 (sc-137089 AF546), Alexa Fluor® 594 (sc-137089 AF594) or Alexa Fluor® 647 (sc-137089 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-137089 AF680) or Alexa Fluor® 790 (sc-137089 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ERI-1 (B-10) is recommended for detection of ERI-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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ERI-1 siRNA (h): sc-45559, ERI-1 siRNA (m): sc-45560, ERI-1 shRNA Plasmid (h): sc-45559-SH, ERI-1 shRNA Plasmid (m): sc-45560-SH, ERI-1 shRNA (h) Lentiviral Particles: sc-45559-V and ERI-1 shRNA (m) Lentiviral Particles: sc-45560-V.

ERI-1 (B-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of ERI-1: 34 kDa.

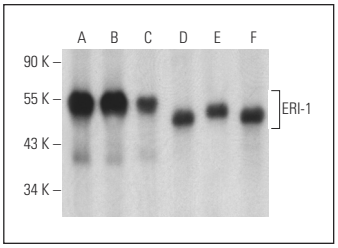
Molecular Weight (observed) of ERI-1: 42 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or JAR cell lysate: sc-2276.

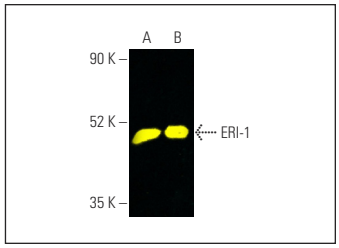
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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



ERI-1 (B-10): sc-137089. Western blot analysis of ERI-1 expression in Jurkat (**A**), K-562 (**B**), JAR (**C**), NIH/3T3 (**D**), c4 (**E**) and RAW 264.7 (**F**) whole cell lysates. Detection reagent used: m-IgG_{2a} BP-HRP: sc-542731.



ERI-1 (B-10): sc-137089. Fluorescent western blot analysis of ERI-1 expression in Jurkat (**A**) and K-562 (**B**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_{2a} BP-CFL 488: sc-542735.

SELECT PRODUCT CITATIONS

1. Shi, Z., et al. 2010. The neuroprotective effect of Batch-2, an aqueous extract from cat's claw *(Uncaria tomentosa)* on 6-OHDA-Induced SH-SY5Y cell damage. Prog. Biochem. Biophys. 37: 769-778.
2. Lukiw, W.J., et al. 2012. Generation of reactive oxygen species (ROS) and pro-inflammatory signaling in human brain cells in primary culture. J. Alzheimers Dis. Parkinsonism 2: 001.

STORAGE

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

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.