SANTA CRUZ BIOTECHNOLOGY, INC.

E2A (H-208): sc-762

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Transcription factor 3 (E47, E12, E2A immunoglobulin enhancer binding factors E12/E47, E2A, ITF1, TCF3) influences gene expression during B cell maturation. Differentiation of myogenic cells is regulated by multiple positively and negatively acting factors. One well characterized family of helix-loop-helix (HLH) proteins known to play an important role in the regulation of muscle cell development includes Myo D, myogenin, Myf-5 and Myf-6 (also designated MRF-4 or herculin). Myo D transcription factors form heterodimers with products of a more widely expressed family of bHLH genes, the E family, which consists of at least three distinct genes: E2A, IF2 and HEB. Myo D-E heterodimers bind avidly to consensus (CANNTG) E box target sites that are functionally important elements in the upstream regulatory sequences of many muscle-specific terminal differentiation genes. Both homo- and hetero-oligomers of these proteins are able to distinguish very closely related E box proteins and are believed to play important roles in lineage-specific gene expression.

CHROMOSOMAL LOCATION

Genetic locus: TCF3 (human) mapping to 19p13.3; Tcf3 (mouse) mapping to 10 C1.

SOURCE

E2A (H-208) is a rabbit polyclonal antibody raised against amino acids 208-649 mapping within a basic helix-loop-helix domain of E2A of human origin.

PRODUCT

Each vial contains 200 µg IgG 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-762 X, 200 µg/0.1 ml.

APPLICATIONS

E2A (H-208) is recommended for detection of E2A isoforms E12 and E47 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for E2A siRNA (h): sc-35245, E2A siRNA (m): sc-35246, E2A shRNA Plasmid (h): sc-35245-SH, E2A shRNA Plasmid (m): sc-35246-SH, E2A shRNA (h) Lentiviral Particles: sc-35245-V and E2A shRNA (m) Lentiviral Particles: sc-35246-V.

E2A (H-208) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of E2A: 67 kDa.

Molecular Weight (observed) of E2A: 63-92 kDa.

Positive Controls: E2A (m): 293T Lysate: sc-119880.

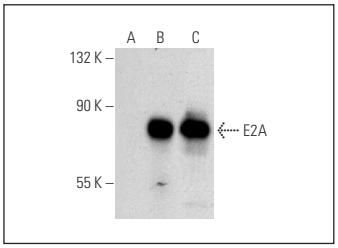
STORAGE

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.

DATA



E2A (H-208): sc-762. Western blot analysis of E2A expression in non-transfected 293T: sc-117752 (**A**), mouse E2A transfected 293T: sc-119880 (**B**) and Daudi (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

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7. Hauser, J., et al. 2008. B-cell receptor activation inhibits AID expression through calmodulin inhibition of E-proteins. Proc. Natl. Acad. Sci. USA 105: 1267-1272.
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