SANTA CRUZ BIOTECHNOLOGY, INC.

TFIIE-α (C-17): sc-237

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In eukaryotic systems, initiation of transcription from protein-coding genes is a complex process requiring RNA polymerase II and broad families of auxiliary transcription factors. Such factors can be divided into two major functional classes: the basal factors that are required for transcription of all Pol II genes, including TFIIA, TFIIB, TFIID, TFIIE, TFIIF and TFIIH; and sequence-specific factors that regulate gene expression. The basal transcription factors and Pol II form a specific multiprotein complex near the transcription start site by interacting with core promotor elements such as the TATA box generally located 25-30 base pairs upstream of the transcription start site. Human TFIIE consists of two subunits, α and β. The structure of TFIIE appears to be a heterotetramer (α2β2); both subunits are required for optimal basal-level transcription.

CHROMOSOMAL LOCATION

Genetic locus: GTF2E1 (human) mapping to 3q13.33; Gtf2e1 (mouse) mapping to 16 B3.

SOURCE

TFIIE-α (C-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of TFIIE-α 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.

Blocking peptide available for competition studies, sc-237 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-237 X, 200 µg/0.1 ml.

APPLICATIONS

TFIIE-α (C-17) is recommended for detection of TFIIE-α p57 of mouse, rat and human origin 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.

TFIIE-α (C-17) is also recommended for detection of TFIIE-α p57 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TFIIE-α siRNA (h): sc-36651, TFIIE-α siRNA (m): sc-36652, TFIIE-α shRNA Plasmid (h): sc-36651-SH, TFIIE-α shRNA Plasmid (m): sc-36652-SH, TFIIE-α shRNA (h) Lentiviral Particles: sc-36651-V and TFIIE-α shRNA (m) Lentiviral Particles: sc-36652-V.

TFIIE-α (C-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TFIIE-α: 57 kDa.

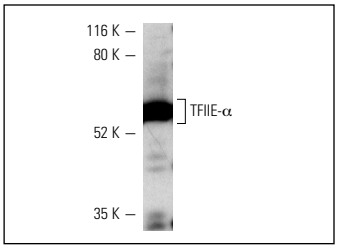
RESEARCH USE

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

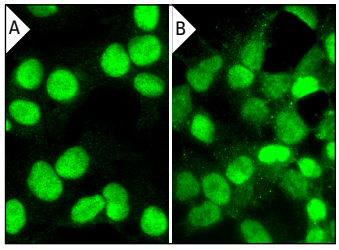
STORAGE

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

DATA



TFIIE-α (C-17): sc-237. Western blot analysis of TFIIE-α expression in NIH/3T3 nuclear extract.



TFIIE-α (C-17): sc-237. Immunofluorescence staining of formalin-fixed HepG2 cells showing nuclear localization (**A**). Immunofluorescence staining of formalin-fixed HepG2 cells showing nuclear and cytoplasmic localization (**B**).

SELECT PRODUCT CITATIONS

1. Park, C., et al. 1995. The general transcription-repair factor TFIIH is recruited to the excision repair complex by the XPA protein independent of the TFIIE transcription factor. J. Biol. Chem. 270: 4896-4902.
2. Ossipow, V., et al. 1995. A mammalian RNA polymerase II holoenzyme containing all components required for promoter-specific transcription initiation. Cell 83: 137-146.
3. Gjymishka, A., et al. 2008. Despite increased ATF4 binding at the C/EBP-ATF composite site following activation of the unfolded protein response, system A transporter 2 (SNAT2) transcription activity is repressed in HepG2 cells. J. Biol. Chem. 283: 27736-27747.
4. Young, D.P., et al. 2008. Binding of C/EBPβ to the C-reactive protein (CRP) promoter in Hep3B cells is associated with transcription of CRP mRNA. J. Immunol. 181: 2420-2427.
5. Gjymishka, A., et al. 2009. Transcriptional induction of the human asparagine synthetase gene during the unfolded protein response does not require the ATF6 and IRE1/XBP1 arms of the pathway. Biochem. J. 417: 695-703.
6. Gosmain, Y., et al. 2010. Pax6 controls the expression of critical genes involved in pancreatic α cell differentiation and function. J. Biol. Chem. 285: 33381-33393.
7. Kelso, T.W., et al. 2014. Cyclin-dependent kinase 7 controls mRNA synthesis by affecting stability of preinitiation complexes, leading to altered gene expression, cell cycle progression, and survival of tumor cells. Mol. Cell. Biol. 34: 3675-3688.