

TFIIB (SI-1): sc-274



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, TFIIIF 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 promoter elements such as the TATA box generally located 25-30 base pairs upstream of the transcription start site. Template commitment is established by the initial binding of TFIID to the "TATA" element of the promoter, a step which may be facilitated by TFIIA. TFIIB then acts as the bridge between TFIID and RNA polymerase II.

CHROMOSOMAL LOCATION

Genetic locus: GTF2B (human) mapping to 1p22.2; Gtf2b (mouse) mapping to 3 H1.

SOURCE

TFIIB (SI-1) is a rabbit polyclonal antibody raised against amino acids 1-316 representing full length TFIIB 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-274 X, 200 µg/0.1 ml.

TFIIB (SI-1) is available conjugated to agarose (sc-274 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

APPLICATIONS

TFIIB (SI-1) is recommended for detection of TFIIB p33 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).

TFIIB (SI-1) is also recommended for detection of TFIIB p33 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for TFIIB siRNA (h): sc-29502, TFIIB siRNA (m): sc-36647, TFIIB shRNA Plasmid (h): sc-29502-SH, TFIIB shRNA Plasmid (m): sc-36647-SH, TFIIB shRNA (h) Lentiviral Particles: sc-29502-V and TFIIB shRNA (m) Lentiviral Particles: sc-36647-V.

TFIIB (SI-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TFIIB: 38 kDa.

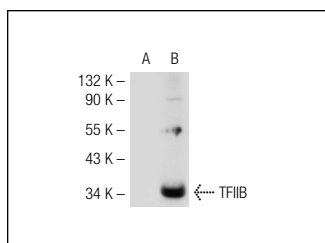
STORAGE

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

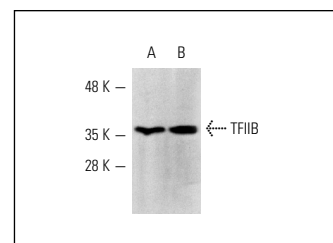
RESEARCH USE

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

DATA



TFIIB (SI-1): sc-274. Western blot analysis of TFIIB expression in non-transfected: sc-117752 (A) and mouse TFIIB transfected: sc-124000 (B) 293T whole cell lysates.



TFIIB (SI-1): sc-274. Western blot analysis of TFIIB expression in K-562 (A) and Jurkat (B) whole cell lysates.

SELECT PRODUCT CITATIONS

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- 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.
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- Nagata, M., et al. 2009. Transcription arrest relief by S-II/TFIIS during gene expression in erythroblast differentiation. *Genes Cells* 14: 371-380.
- Napoli, S., et al. 2009. Promoter-specific transcriptional interference and c-myc gene silencing by siRNAs in human cells. *EMBO J.* 28: 1708-1719.
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- Cabart, P., et al. 2011. Transcription factor TFIIIF is not required for initiation by RNA polymerase II, but it is essential to stabilize transcription factor TFIIB in early elongation complexes. *Proc. Natl. Acad. Sci. USA* 108: 15786-15791.
- Orlandi, C., et al. 2011. Molecular and cellular correlates of the CIITA-mediated inhibition of HTLV-2 Tax-2 transactivator function resulting in loss of viral replication. *J. Transl. Med.* 9: 106.

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Try **TFIIB (D-3): sc-271736** or **TFIIB (D-12): sc-271784**, our highly recommended monoclonal alternatives to TFIIB (SI-1).