

TFIIF RAP 74 (N-16): sc-234

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, TFII E, 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 promoter elements such as the TATA box, generally located 25-30 base pairs upstream of the transcription start site. TFIIF, a heteromer composed of a small (RAP 30) and a large (RAP 74) subunit, is required for RNA polymerase II to assemble into a preinitiation complex formed by promoter DNA and the general factors TFIID, TFIIA and TFIIB. In addition, TFIIF stimulates transcription elongation by RNA polymerase II.

CHROMOSOMAL LOCATION

Genetic locus: GTF2F1 (human) mapping to 19p13.3; Gtf2f1 (mouse) mapping to 17 E1.1.

SOURCE

TFIIF RAP 74 (N-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of TFIIF RAP 74 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-234 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-234 X, 200 µg/0.1 ml.

APPLICATIONS

TFIIF RAP 74 (N-16) is recommended for detection of the 74 kDa RAP 74 subunit of TFIIF basal transcription factor 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).

TFIIF RAP 74 (N-16) is also recommended for detection of the 74 kDa RAP 74 subunit of TFIIF basal transcription factor in additional species, including equine, canine, bovine and porcine.

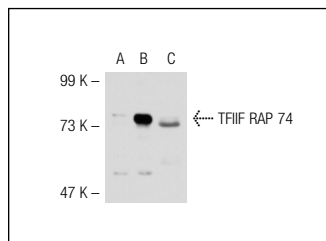
Suitable for use as control antibody for TFIIF RAP 74 siRNA (h): sc-38523, TFIIF RAP 74 siRNA (m): sc-38524, TFIIF RAP 74 shRNA Plasmid (h): sc-38523-SH, TFIIF RAP 74 shRNA Plasmid (m): sc-38524-SH, TFIIF RAP 74 shRNA (h) Lentiviral Particles: sc-38523-V and TFIIF RAP 74 shRNA (m) Lentiviral Particles: sc-38524-V.

TFIIF RAP 74 (N-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

STORAGE

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

DATA



TFIIF RAP 74 (N-16): sc-234. Western blot analysis of TFIIF RAP 74 expression in non-transfected 293T: sc-117752 (A), mouse TFIIF RAP 74 transfected 293T: sc-124005 (B) and NIH/3T3 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

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- Freijtag, W., et al. 2001. Heat shock factor 4 (HSF4a) represses basal transcription through interaction with TFIIF. *J. Biol. Chem.* 276: 14685-14694.
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- Iwasaki, K., et al. 2007. PIAS 3 interacts with ATF-1 and regulates the human ferritin H gene through an antioxidant-responsive element. *J. Biol. Chem.* 282: 22335-22343.
- Zhang, Q., et al. 2010. PLD1-dependent PKC γ activation downstream to Src is essential for the development of pathologic retinal neovascularization. *Blood* 116: 1377-1385.
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RESEARCH USE

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