

TFIIE- α Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	60	Rabbit	#P29083	2960

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

TFIIE- α Antibody recognizes endogenous levels of total TFIIE- α protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly243 of human TFIIE- α protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Transcription initiation factor IIE subunit alpha (TFIIE- α) is part of TFIIE, a general transcription factor made up of paired α and β subunits. These general transcription factors include TFIIA, TFIIB, TFIID, TFIIE, TFIIIF, and TFIIH (1-4). Binding of RNA polymerase II (RNAPII) to promoter sequences as part of the pre-initiation complex (PIC) is facilitated by these general transcription factors. These factors also help in selection of the proper transcription start site, DNA unwinding, and RNAPII promoter escape during transcription (1). During the transition from transcription initiation to elongation, TFIIE stimulates the TFIIH kinase and DNA helicase activities, responsible for phosphorylation of the carboxy-terminal domain of the largest RNAPII subunit (POL2RA) and unwinding of promoter DNA for RNAPII promoter escape (1,5-9).

Background References

1. Thomas, M.C. and Chiang, C.M. (2006) *Crit Rev Biochem Mol Biol* 41, 105-78.
2. Ohkuma, Y. et al. (1991) *Nature* 354, 398-401.
3. Sumimoto, H. et al. (1991) *Nature* 354, 401-4.
4. Peterson, M.G. et al. (1991) *Nature* 354, 369-73.
5. Ohkuma, Y. and Roeder, R.G. (1994) *Nature* 368, 160-3.
6. Ohkuma, Y. et al. (1995) *Mol Cell Biol* 15, 4856-66.
7. Serizawa, H. et al. (1994) *J Biol Chem* 269, 20750-6.
8. Larochelle, S. et al. (2012) *Nat Struct Mol Biol* 19, 1108-15.
9. Grünberg, S. et al. (2012) *Nat Struct Mol Biol* 19, 788-96.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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