

#4562 Store at -20°C

## TFII-I Antibody



**Cell Signaling**  
TECHNOLOGY®

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<b>Applications:</b> WB, IP, IHC-P	<b>Reactivity:</b> H M Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 135, 138	<b>Source:</b> Rabbit	<b>UniProt ID:</b> #P78347	<b>Entrez-Gene Id:</b> 2969
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### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)

#### Dilution

1:1000  
1:50  
1:200 - 1:800

### Storage

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

### Specificity / Sensitivity

TFII-I Antibody detects endogenous levels of total TFII-I (all isoforms).

### Source / Purification

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

### Background

TFII-I (also known as SPIN and BAP-135) is a multifunctional transcription factor that facilitates basal transcriptional machinery assembly at the core promoter region, as well as the assembly of the transcriptional activator complex at upstream regulatory sites (1). Four isoforms of TFII-I (alpha, beta, gamma, and delta) form homo- or heteromeric complexes, which may perform different functions on different promoters (1). In B cells, cross-linking of BCR (B cell receptors) leads to TFII-I phosphorylation at Tyr248 by Btk (2). This phosphorylation disrupts the association of Btk and TFII-I and enhances TFII-I transcriptional activity and nuclear localization (2). In nonlymphoid cells, TFII-I is phosphorylated at Tyr248 by Src dependent kinase or JAK2 (3,4). PKG (cGMP-dependent kinase) interacts with and phosphorylates TFII-I at Ser371 and 743, which also promotes TFII-I transcription activity (5). TFII-I activity is also modulated by HDAC3 (Histone Deacetylase 3) through a physical interaction between the two proteins (6).

### Background References

- Roy, A.L. (2001) *Gene* 274, 1-13.
- Novina, C. D. et al. (1999) *Mol. Cell. Biol.* 19, 5014-5024.
- Kim, D. and Cochran, B.H. (2001) *Mol. Cell. Biol.* 21, 3387-3397.
- Cheriyath, V. et al. (2002) *J. Biol. Chem.* 277, 22798-22805.
- Casteel, D. E. et al. (2002) *J. Biol. Chem.* 277, 32003-32014.
- Wen, Y. et al. (2003) *J. Biol. Chem.* 278, 1841-1847.

### 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

**WB:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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