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SSU72 (D3I2D) Rabbit mAb**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: WB, IP, eCLIP	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 27	Source/Isotype: Rabbit IgG	UniProt ID: #Q9NP77	Entrez-Gene Id: 29101
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Product Usage Information**Application**Western Blotting
Immunoprecipitation
eCLIP**Dilution**1:1000
1:50
1:200

For more information about eCLIP and the RBP-eCLIP kit, please visit Eclipse Bioinnovations.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

SSU72 (D3I2D) Rabbit mAb recognizes endogenous levels of total SSU72 protein.

Species predicted to react based on 100% sequence homology:

Hamster, Chicken, Bovine, Dog, Pig, Guinea Pig

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro93 of human SSU72 protein.

Background

SSU72 is a protein phosphatase originally identified through its interaction with TFIIB as a factor required for transcription and RNA processing (1,2). While SSU72 has been known as a phosphatase of the RNA polymerase II carboxy-terminal domain at Ser5 of the heptapeptide repeat, additional studies suggest a role for SSU72 as a phosphatase for Ser7 of the heptapeptide repeat as well (3-9). The activities of SSU72 are thought to play a critical role in coupling transcription with pre-mRNA 3' end processing (10-12). SSU72 is required for gene looping that connects the gene promoter with the terminator region, leading to proper initiation of transcription and enforcement of transcriptional directionality on promoters that may otherwise act as bidirectional promoters (13-14). In addition to a role in transcription, SSU72 acts as a cohesin binding protein that regulates cohesion between sister chromatid arms during mitosis or meiosis (15).

Background References

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8. Zhang, D.W. et al. (2012) *J Biol Chem* 287, 8541-51.
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12. Xiang, K. et al. (2010) *Nature* 467, 729-33.
13. Wang, Y. et al. (2010) *Curr Biol* 20, 548-53.
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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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation **eCLIP:** eCLIP

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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