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|--------------------------|----------------------------------------------------------------------------------------------|
| <b>Product name:</b>     | SPT4H Rabbit Polyclonal Antibody                                                             |
| <b>Cat number:</b>       | ABN18224                                                                                     |
| <b>Conjugate:</b>        | Unconjugated                                                                                 |
| <b>Size:</b>             | 100µL                                                                                        |
| <b>Clone:</b>            | Polyclonal                                                                                   |
| <b>Concentration:</b>    | 1mg/ml                                                                                       |
| <b>Host:</b>             | Rabbit                                                                                       |
| <b>Isotype:</b>          | IgG                                                                                          |
| <b>Immunogen:</b>        | Synthesized peptide derived from human protein . at AA range: 40-120                         |
| <b>Reactivity:</b>       | Human,Rat,Mouse                                                                              |
| <b>Applications:</b>     | WB 1:500-1:2000,ELISA 1:5000-1:20000                                                         |
| <b>Molecular Weight:</b> | 12kDa                                                                                        |
| <b>Purification:</b>     | Affinity purification                                                                        |
| <b>Form:</b>             | Liquid                                                                                       |
| <b>Buffer:</b>           | Liquid in PBS containing 50% glycerol, and 0.02% New type preservative N.                    |
| <b>Storage:</b>          | Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles. |

**Background:**

This gene encodes the small subunit of DRB (5,6-dichloro-1-beta-d-ribofuranosylbenzimidazole) sensitivity-inducing factor (DSIF) complex, which regulates mRNA processing and transcription elongation by RNA polymerase II. The encoded protein is localized to the nucleus and interacts with the large subunit (SUPT5H) to form the DSIF complex. Related pseudogenes have been identified on chromosomes 2 and 12. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Nov 2012],function:Component of the DRB sensitivity-inducing factor complex (DSIF complex), which regulates mRNA processing and transcription elongation by RNA polymerase II. DSIF positively regulates mRNA capping by stimulating the mRNA guanylyltransferase activity of RNGTT/CAP1A. DSIF also acts cooperatively with the negative elongation factor complex (NELF complex) to enhance transcriptional pausing at sites proximal to the promoter. Transcriptional pausing may facilitate the assembly of an elongation competent RNA polymerase II complex. DSIF and NELF promote pausing by inhibition of the transcription elongation factor TFIIS/S-II. TFIIS/S-II binds to RNA polymerase II at transcription pause sites and stimulates the weak intrinsic nuclease activity of the enzyme. Cleavage of blocked transcripts by RNA polymerase II promotes the resumption of transcription from the new 3' terminus and may allow repeated attempts at transcription through natural pause sites. DSIF can also positively regulate transcriptional elongation and is required for the efficient activation of transcriptional elongation by the HIV-1 nuclear transcriptional activator, Tat. DSIF acts to suppress transcriptional pausing in transcripts derived from the HIV-1 LTR and blocks premature release of HIV-1 transcripts at terminator sequences.,similarity:Belongs to the SPT4 family.,subunit:Interacts with SUPT5H to form DSIF. DSIF interacts with the positive transcription elongation factor b complex (P-TEFb complex), which is composed of CDK9 and cyclin-T (CCNT1 or CCNT2). DSIF interacts with RNA polymerase II, and this interaction is reduced by phosphorylation of the C-terminal domain (CTD) of POLR2A by P-TEFb. DSIF also interacts with the NELF complex, which is composed of WHSC2/NELFA, COBRA1/NELFB, TH1L/NELFD and RDBP/NELFE, and this interaction occurs following prior binding of DSIF to RNA polymerase II. DSIF also interacts with HRMT1L2/PRMT1, HTATSF1/TATSF1, RNGTT/CAP1A, SKB1/PRMT5, SUPT6H, and can interact with PIN1.,tissue specificity:Widely expressed.,