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HTATSF1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP6654c

Specification

HTATSF1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession O43719

HTATSF1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 27336

Other Names
HIV Tat-specific factor 1, Tat-SF1, HTATSF1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6654c was selected from the Center region of human HTATSF1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

HTATSF1 Antibody (Center) Blocking Peptide - Protein Information

Name HTATSF1 {ECO:0000303|PubMed:35597237, ECO:0000312|HGNC:HGNC:5276}

Function
Component of the 17S U2 SnRNP complex of the spliceosome, a large ribonucleoprotein complex that removes introns from transcribed pre-mRNAs (PubMed:30567737, PubMed:32494006, PubMed:34822310). The 17S U2 SnRNP complex (1) directly participates in early spliceosome assembly and (2) mediates recognition of the intron branch site during pre-mRNA splicing by promoting the selection of the pre-mRNA branch- site adenosine, the nucleophile for the first step of splicing (PubMed:30567737, PubMed:32494006, PubMed:34822310). Within the 17S U2 SnRNP complex, HTATSF1 is required to stabilize the branchpoint- interacting stem loop

(PubMed:34822310). HTATSF1 is displaced from the 17S U2 SnRNP complex before the stable addition of the 17S U2 SnRNP complex to the spliceosome, destabilizing the branchpoint-interacting stem loop and allowing to probe intron branch site sequences (PubMed:32494006, PubMed:34822310). Also acts as a regulator of transcriptional elongation, possibly by mediating the reciprocal stimulatory effect of splicing on transcriptional elongation (PubMed:10454543, PubMed:10913173, PubMed:11780068). Involved in double-strand break (DSB) repair via homologous recombination in S- phase by promoting the recruitment of TOPBP1 to DNA damage sites (PubMed:35597237). Mechanistically, HTATSF1 is (1) recruited to DNA damage sites in S-phase via interaction with poly-ADP-ribosylated RPA1 and (2) phosphorylated by CK2, promoting recruitment of TOPBP1, thereby facilitating RAD51 nucleofilaments formation and RPA displacement, followed by homologous recombination (PubMed:35597237).

Cellular Location
Nucleus. Chromosome Note=Recruited to DNA damage sites during S-phase following interaction with poly-ADP-ribosylated RPA1.

Tissue Location
Widely expressed..

HTATSF1 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

HTATSF1 Antibody (Center) Blocking Peptide - Images

HTATSF1 Antibody (Center) Blocking Peptide - Background

HTATSF1 functions as a cofactor for the stimulation of transcriptional elongation by HIV-1 Tat, which binds to the HIV-1 promoter through Tat-TAR interaction. This protein may also serve as a dual-function factor to couple transcription and splicing and to facilitate their reciprocal activation.

HTATSF1 Antibody (Center) Blocking Peptide - References

Miller,H.B., PLoS ONE 4 (5), E5710 (2009)Remoli,A.L., Biochem. J. 396 (2), 371-380 (2006)