

Goat Anti-SIAHBP1 / FIR Antibody

Peptide-affinity purified goat antibody Catalog # AF1990a

Specification

Goat Anti-SIAHBP1 / FIR Antibody - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Concentration Isotype Calculated MW WB <u>Q9UHX1</u> <u>NP_001129505</u>, <u>22827</u>, <u>67959 (mouse)</u> Human Mouse, Rat, Dog, Cow Goat Polyclonal 100ug/200ul IgG 59875

Goat Anti-SIAHBP1 / FIR Antibody - Additional Information

Gene ID 22827

Other Names

Poly(U)-binding-splicing factor PUF60, 60 kDa poly(U)-binding-splicing factor, FUSE-binding protein-interacting repressor, FBP-interacting repressor, Ro-binding protein 1, RoBP1, Siah-binding protein 1, Siah-BP1, PUF60, FIR, ROBPI, SIAHBP1

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions Goat Anti-SIAHBP1 / FIR Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-SIAHBP1 / FIR Antibody - Protein Information

Name PUF60 (<u>HGNC:17042</u>)

Function

DNA- and RNA-binding protein, involved in several nuclear processes such as pre-mRNA splicing, apoptosis and transcription regulation. In association with FUBP1 regulates MYC transcription at the P2 promoter through the core-TFIIH basal transcription factor. Acts as a transcriptional repressor through the core-TFIIH basal transcription factor. Represses FUBP1-induced



transcriptional activation but not basal transcription. Decreases ERCC3 helicase activity. Does not repress TFIIH-mediated transcription in xeroderma pigmentosum complementation group B (XPB) cells. Is also involved in pre-mRNA splicing. Promotes splicing of an intron with weak 3'-splice site and pyrimidine tract in a cooperative manner with U2AF2. Involved in apoptosis induction when overexpressed in HeLa cells. Isoform 6 failed to repress MYC transcription and inhibited FIR-induced apoptosis in colorectal cancer. Isoform 6 may contribute to tumor progression by enabling increased MYC expression and greater resistance to apoptosis in tumors than in normal cells. Modulates alternative splicing of several mRNAs. Binds to relaxed DNA of active promoter regions. Binds to the pyrimidine tract and 3'-splice site regions of pre-mRNA; binding is enhanced in presence of U2AF2. Binds to Y5 RNA in association with RO60. Binds to poly(U) RNA.

Cellular Location

Nucleus Note=Colocalizes partially with RO60.

Tissue Location

Isoform 2 is expressed in colonic epithelium and colorectal epithelium cancer (at protein level). Isoform 6 is expressed in colorectal epithelial cancer but below detection level in colonic epithelium. Expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney, pancreas, spleen, thymus, prostate, testis, ovary, small intestine, colon and peripheral blood leukocytes

Goat Anti-SIAHBP1 / FIR Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Goat Anti-SIAHBP1 / FIR Antibody - Images



AF1990a (0.1 μ g/ml) staining of HEK293 lysate (35 μ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-SIAHBP1 / FIR Antibody - Background



The protein encoded by this gene is a Ro RNP-binding protein. It interacts with Ro RNPs and their interaction is thought to represent a gain of function for Ro RNPs. This protein also forms a ternary complex with far upstream element (FUSE) and FUSE-binding protein. It can repress a c-myc reporter via the FUSE. It is also known to target transcription factor IIH and inhibit activated transcription. This gene is implicated in the xeroderma pigmentosum disorder. There are two alternatively spliced transcript variants of this gene encoding different isoforms. There seems to be evidence of multiple polyadenylation sites for this gene.

Goat Anti-SIAHBP1 / FIR Antibody - References

Quantitative characterization of the interactions among c-myc transcriptional regulators FUSE, FBP, and FIR. Hsiao HH, et al. Biochemistry, 2010 Jun 8. PMID 20420426.

Dimerization and protein binding specificity of the U2AF homology motif of the splicing factor Puf60. Corsini L, et al. J Biol Chem, 2009 Jan 2. PMID 18974054.

A protein-protein interaction network of transcription factors acting during liver cell proliferation. Gao J, et al. Genomics, 2008 Apr. PMID 18255255.

Systematic analysis of the protein interaction network for the human transcription machinery reveals the identity of the 7SK capping enzyme. Jeronimo C, et al. Mol Cell, 2007 Jul 20. PMID 17643375.

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