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Datasheet for 210-301-B89

Esrp-1 Antibody

Overview

Description:	Anti-Esrp-1 (MOUSE) Monoclonal Antibody - 210-301-B89
Item No.:	210-301-B89
Size:	100 µg
Applications:	WB
Reactivity:	Mouse
Host Species:	Mouse

Product Details

Background:	Epithelial splicing regulatory protein 1 (Esrp-1) is an mRNA splicing factor that regulates the formation of epithelial cell-specific isoforms. It specifically regulates the expression of FGFR2-IIIb, an epithelial cell-specific isoform of FGFR2, and also regulates the splicing of CD44, CTNND1, ENAH, 3 transcripts that undergo changes in splicing during the epithelial-to-mesenchymal transition (EMT). EsrpP-1 acts by directly binding specific sequences in mRNAs. It binds the GU-rich sequence motifs in the ISE/ISS-3, a cis-element regulatory region present in the mRNA of FGFR2.
Synonyms:	mouse anti-Esrp-1 antibody, mouse anti-Esrp1 antibody, Rbm35a, Epithelial splicing regulatory protein 1, RNA-binding protein 35A, RNA-binding motif protein 35A
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	27H12.F3.H5
Format:	IgG2b

Target Details

Gene Name:	Esrp1
Reactivity:	Mouse
Immunogen Type:	Recombinant Protein

Immunogen:	Anti-Esrp-1 was produced by repeated immunizations of full length recombinant mouse Esrp-1 fusion protein.
Purity/Specificity:	This product is an IgG fraction antibody purified by Protein-A chromatography followed by extensive dialysis against the buffer stated above. This antibody reacts with mouse Esrp-1 protein. A BLAST analysis of the immunizing protein sequence shows 100% homology with Esrp-1 from mouse and a 91% sequence homology with Esrp-1 from human, pig, rat, opossum, horse, cattle, panda, dog, and chimpanzee. The binding epitope of this monoclonal antibody has not been mapped.
Relevant Links:	• UniProtKB - Q3US41 • NCBI - NP_918944.2 • GeneID - 207920

Application Details

Tested Applications:	WB
Application Note:	This protein-A purified antibody has been tested for use western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 75.5 kDa in size corresponding to Esrp-1 by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:750,000
WB:	1:1000

Formulation

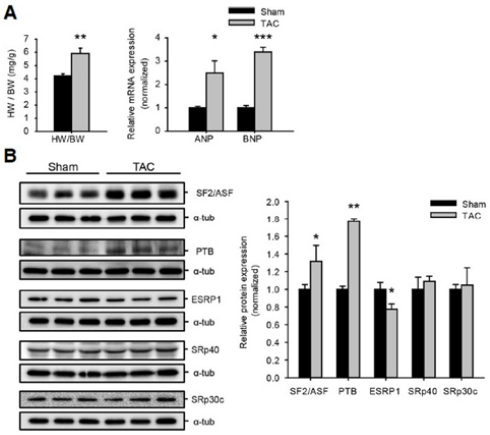
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

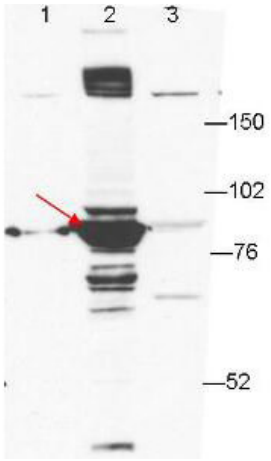
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Protein expression levels of the splicing factors bound to the putative motifs in pressure-overload cardiac hypertrophy. (A) Heart weight/body weight ratio (HW/BW) at 1 week after Sham or TAC operation (left panel). The relative expression levels of the hypertrophic markers in the mouse models were determined by qRT-PCR (right panel). The differences are statistically significant at *p < 0.05, **p < 0.01 and ***p < 0.001 (The student t-test). Bars repre-sent means ± SD (n = 3). (B) The relative protein expression levels of the putative splicing factors bound to the identified intronic motifs were measured by Western blotting. Bars represent means ± SD (n = 3). The differences are statistically significant at *p < 0.05, **p < 0.01 (The student t-test). Fig 3. PMID: 24552714



Western Blot
Anti-ESRP-1 by western blot shows detection of ESRP-1 seen in lane 2. Lane 1: GFP-transfected-293T cell extracts, Lane 2: ESRP-1-transfected-293T cell extracts, Lane 3: ESRP2-transfected 293T cell lysates. Briefly, each lane contains approximately 5 µg of lysate. Primary antibody was used at a 1:1000 dilution in PBS-T plus milk, and reacted for 1hr at room temperature. The membrane was washed and reacted with a 1:10,000 dilution of an anti-mouse ECL antibody for 1hr at room temperature. Molecular weight estimation was made by comparison to prestained MW markers.

References

- Peart NJ et al. The global Protein-RNA interaction map of ESRP1 defines a post-transcriptional program that is essential for epithelial cell function. *iScience.* (2022)
- Kim T et al. Pressure-overload cardiac hypertrophy is associated with distinct alternative splicing due to altered expression of splicing factors. *Mol Cells.* (2014)

Disclaimer

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