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Datasheet for 210-301-B89S

Esrp-1 Antibody

Overview

Description:	Anti-Esrp-1 (MOUSE) Monoclonal Antibody - 210-301-B89S
Item No.:	210-301-B89S
Size:	25 µL
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). Esrp-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

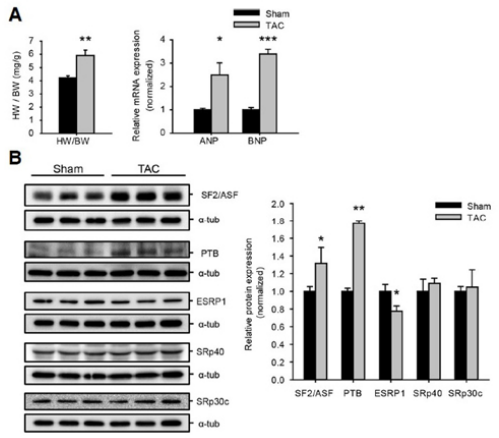
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

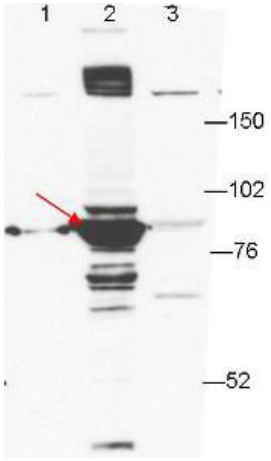
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is three (3) months 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)

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