

Espin (31): sc-136136

BACKGROUND

Espin (ESPN), also known as autosomal recessive deafness type 36 protein (DFNB36), is an 854 amino acid cytoplasmic protein that contains nine ANK repeats and one WH2 domain. The WH2 domain of Espin binds Actin monomers and mediates the assembly of the Actin bundle. This interaction plays a major role in the moderation of the organization, dynamics and signaling capacities of the Actin filament-rich specializations that regulate sensory transduction in various sensory cells. Defects in Espin are the cause of non-syndromic sensorineural deafness autosomal recessive type 36 (DFNB36), a sensorineural hearing loss caused by damage to the neural receptors of the inner ear, the nerve pathways to the brain or the region of the brain responsible for sound. In humans, Espin is expressed as two isoforms produced by alternative splicing and has been found to interact with IRSp53 and Profilin-2. In rodents, four major isoforms ranging from approximately 110 to 25 kDa have been identified with additional splice variants possible.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ESPN (human) mapping to 1p36.31; Espn (mouse) mapping to 4 E2.

SOURCE

Espin (31) is a mouse monoclonal antibody raised against amino acids 458-580 of Espin of rat origin.

PRODUCT

Each vial contains 50 µg IgG_{2a} in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol, and 0.04% stabilizer protein.

APPLICATIONS

Espin (31) is recommended for detection of Espin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

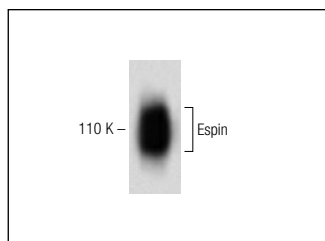
Suitable for use as control antibody for Espin siRNA (h): sc-78697, Espin siRNA (m): sc-40510, Espin shRNA Plasmid (h): sc-78697-SH, Espin shRNA Plasmid (m): sc-40510-SH, Espin shRNA (h) Lentiviral Particles: sc-78697-V and Espin shRNA (m) Lentiviral Particles: sc-40510-V.

Molecular Weight of Espin isoform 1: 110 kDa.

Molecular Weight of Espin mouse variant: 25 kDa.

Positive Controls: rat testis extract: sc-2400.

DATA



Espin (31): sc-136136. Western blot analysis of Espin expression in rat testis tissue extract.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.