

FKBP14 (AT18E2): sc-517400

BACKGROUND

FKBP14 (FK506-binding protein 14), also known as Peptidyl-prolyl *cis-trans* isomerase and 22 kDa FK506-binding protein, is a 211 amino acid enzyme that accelerates the folding of proteins during protein synthesis. Localized within the lumen of the endoplasmic reticulum, FKBP14 contains 2 EF-hand domains and one PPIase FKBP-type domain. Truncation of the amino-terminus of FKBP14 greatly reduces peptidyl prolyl *cis-trans* isomerase activity, therefore suggesting that the PPIase FKBP-type domain must be located at the N-terminus. The gene encoding FKBP14 maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in genes localized to chromosome 7 have been linked to Osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

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CHROMOSOMAL LOCATION

Genetic locus: FKBP14 (human) mapping to 7p14.3.

SOURCE

FKBP14 (AT18E2) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 20-211 of FKBP14 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FKBP14 (AT18E2) is recommended for detection of FKBP14 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FKBP14 siRNA (h): sc-89458, FKBP14 shRNA Plasmid (h): sc-89458-SH and FKBP14 shRNA (h) Lentiviral Particles: sc-89458-V.

Molecular Weight of FKBP14: 24 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

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.

PROTOCOLS

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