

## FKBP7 (S-18): sc-107542

### BACKGROUND

The EF-hand domain is a twelve amino acid loop motif that is commonly found in proteins that participate in calcium-binding events within the cell. EF-hand domains generally exist in a pair that, together, form a stable four-helix bundle that enables the binding of calcium ions. FKBP7 (FK506-binding protein 7), also known as FKBP23, is a 259 amino acid protein that localizes to the lumen of the endoplasmic reticulum and contains one PPlase FKBP-type domain and 2 EF-hand domains. One of several members of the FKBP-type peptidyl-prolyl *cis/trans* isomerase (PPlase) family, FKBP7 binds calcium and functions as a molecular chaperone, possibly accelerating the folding of proteins during protein synthesis. Multiple isoforms of FKBP7 exist due to alternative splicing events.

### REFERENCES

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3. Patterson, C.E., Gao, J., Rooney, A.P. and Davis, E.C. 2002. Genomic organization of mouse and human 65 kDa FK506-binding protein genes and evolution of the FKBP multigene family. *Genomics* 79: 881-889.
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6. Wang, Y., Han, R., Wu, D., Li, J., Chen, C., Ma, H. and Mi, H. 2007. The binding of FKBP23 to BiP modulates BiP's ATPase activity with its PPlase activity. *Biochem. Biophys. Res. Commun.* 354: 315-320.

### CHROMOSOMAL LOCATION

Genetic locus: FKBP7 (human) mapping to 2q31.2; *Fkbp7* (mouse) mapping to 2 C3.

### SOURCE

FKBP7 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FKBP7 of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-107542 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

FKBP7 (S-18) is recommended for detection of FKBP7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other FKBP family members.

FKBP7 (S-18) is also recommended for detection of FKBP7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FKBP7 siRNA (h): sc-94452, FKBP7 siRNA (m): sc-145193, FKBP7 shRNA Plasmid (h): sc-94452-SH, FKBP7 shRNA Plasmid (m): sc-145193-SH, FKBP7 shRNA (h) Lentiviral Particles: sc-94452-V and FKBP7 shRNA (m) Lentiviral Particles: sc-145193-V.

Molecular Weight (predicted) of FKBP7: 30 kDa.

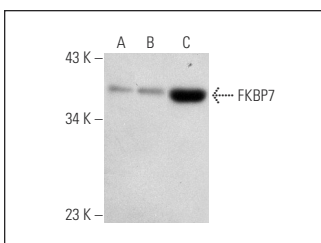
Molecular Weight (observed) of FKBP7: 37 kDa.

Positive Controls: FKBP7 (h3): 293T Lysate: sc-177239 or HeLa whole cell lysate: sc-2200.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

### DATA



FKBP7 (S-18): sc-107542. Western blot analysis of FKBP7 expression in non-transfected 293T: sc-117752 (A), human FKBP7 transfected 293T: sc-177239 (B) and HeLa (C) whole cell lysates.

### 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.