**BACKGROUND**

Activation of FUSE, the far-upstream element, is required for the proper expression of the mammalian gene c-Myc. The binding of FBP (FUSE-binding protein) to FUSE is necessary for c-Myc expression. The FBP interacting repressor, FIR, binds to the central DNA-binding domain of FBP and can serve as an overriding negative regulator of c-Myc promoter activity. FIR interacts with the TFIIH complex, which is a multifunctional, multisubunit RNA polymerase II transcription factor that interacts with several DNA-binding transcription activators. FIR blocks activator-dependent, but not basal transcription through TFIIH. FIR shares identity with seven in absentia (siah) binding protein 1. FIR is expressed in spleen, thymus, prostate, small intestine, colon, and peripheral blood leukocytes, and with relatively higher levels of expression in testis and ovary.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PUF60 (human) mapping to 8q24.3; Puf60 (mouse) mapping to 15 D3.

**SOURCE**

FIR (E-23) is an affinity purified rabbit polyclonal antibody raised against synthetic FIR peptide of human origin.

**PRODUCT**

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

**STORAGE**

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

**APPLICATIONS**

FIR (E-23) is recommended for detection of FIR 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FIR siRNA (h): sc-105353, FIR siRNA (m): sc-145186, FIR shRNA Plasmid (h): sc-105353-SH, FIR shRNA Plasmid (m): sc-145186-SH, FIR shRNA (h) Lentiviral Particles: sc-105353-V and FIR shRNA (m) Lentiviral Particles: sc-145186-V.

Molecular Weight of FIR: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-204 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2233 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

FIR (E-23): sc-133583. Western blot analysis of FIR expression in HeLa whole cell lysate.

**RESEARCH USE**

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

**PROTOCOLS**

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