### SANTA CRUZ BIOTECHNOLOGY, INC.

# Fes (N-19): sc-7671



#### BACKGROUND

Fes, a tyrosine kinase encoded by the proto-oncogene c-fes, is expressed in macrophages and is thought to be involved in the regulation of myeloid differentiation. Fes has several characteristics typical of a cytoplasmic class of protein tyrosine kinases, including an SH2 domain and autophosphorylation capabilities. Fes has been shown to associate with IL-4 and several hematopoietic cytokine receptors, as well as with Bcr. Phosphorylation of Bcr by Fes induces the association of Bcr with the Ras guanine nucleotide exchange factor complex GRB2/Sos.

#### CHROMOSOMAL LOCATION

Genetic locus: FES (human) mapping to 15q26.1; Fes (mouse) mapping to 7 D2.

#### SOURCE

Fes (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Fes of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Fes (N-19) is available conjugated to agarose (sc-7671 AC), 500  $\mu g/0.25$  ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-7671 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **STORAGE**

Store at 4° C, \*\*D0 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.

#### **APPLICATIONS**

Fes (N-19) is recommended for detection of Fes of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Fes (N-19) is also recommended for detection of Fes in additional species, including equine, canine, bovine, porcine and feline.

Suitable for use as control antibody for Fes siRNA (h): sc-35365, Fes siRNA (m): sc-35366, Fes shRNA Plasmid (h): sc-35366-SH, Fes shRNA (h) Lentiviral Particles: sc-35366-V and Fes shRNA (m) Lentiviral Particles: sc-35366-V.

Molecular Weight of Fes: 93 kDa.

Positive Controls: Fes (h2): 293T Lysate: sc-159705, rat heart extract: sc-2393 or mouse heart extract: sc-2254.

#### **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





expression in rat heart extract

Fes (N-19): sc-7671. Western blot analysis of Fes expression in non-transfected: sc-117752 ( $\pmb{A}$ ) and human Fes transfected: sc-159705 ( $\pmb{B}$ ) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Mitsui, N., et al. 2002. Involvement of Fes/Fps tyrosine kinase in semaphorin3A signaling. EMBO J. 21: 3274-3285.
- 2. Wassle, H., et al. 2006. Expression of the vesicular glutamate transporter vGluT2 in a subset of cones of the mouse retina. J. Comp. Neurol. 496: 544-555.
- Kanda, S., et al. 2006. Fibroblast growth factor-2 induces the activation of Src through Fes, which regulates focal adhesion disassembly. Exp. Cell Res. 312: 3015-3022.
- Delfino, F.J., et al. 2006. The KRAB-associated co-repressor KAP-1 is a coiled-coil binding partner, substrate and activator of the c-Fes protein tyrosine kinase. Biochem. J. 399: 141-150.
- Voisset, E., et al. 2007. The tyrosine kinase FES is an essential effector of KITD816V proliferation signal. Blood 110: 2593-2599.
- McGinnis, L.K., et al. 2011. Fer tyrosine kinase is required for germinal vesicle breakdown and meiosis-I in mouse oocytes. Mol. Reprod. Dev. 78: 33-47.

#### MONOS Satisfation Guaranteed

Try Fes (D-9): sc-377179 or Fes (E-1): sc-166371, our highly recommended monoclonal alternatives to Fes (N-19).