SANTA CRUZ BIOTECHNOLOGY, INC.

Fes (5A11G5): sc-81706

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

REFERENCES

1. Hjermstad, S.J., et al. 1993. Regulation of the human c-Fes protein kinase (p93c-Fes) by its src homology 2 domain and major autophosphorylation site (Tyr-713). Oncogene 8: 2283-2292.
2. Hjermstad, S.J., et al. 1993. Phosphorylation of the Ras GTPase-activating protein (GAP) by the p93c-Fes protein kinase *in vitro* and formation of GAP-Fes complexes via an SH2 domain-dependent mechanism. Biochemistry 32: 10519-10525.
3. Izuhara, K., et al. 1994. Interaction of the c-Fes proto-oncogene product with the interleukin-4 receptor. J. Biol. Chem. 269: 18623-18629.
4. Maru, Y., et al. 1995. Tyrosine phosphorylation of BCR by FPS/Fes protein-tyrosine kinases induces association of Bcr with GRB-2/SOS. Mol. Cell. Biol. 15: 835-842.
5. Rogers, J.A., et al. 1996. Autophosphorylation of the Fes tyrosine kinase. Evidence for an intermolecular mechanism involving two kinase domain tyrosine residues. J. Biol. Chem. 271: 17519-17525.
6. Jucker, M., et al. 1997. The Fes protein-tyrosine kinase phosphorylates a subset of macrophage proteins that are involved in cell adhesion and cell-cell signaling. J. Biol. Chem. 272: 2104-2109.

CHROMOSOMAL LOCATION

Genetic locus: FES (human) mapping to 15q26.1.

SOURCE

Fes (5A11G5) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 613-822 of Fes of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

Fes (5A11G5) is recommended for detection of Fes of 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 immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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

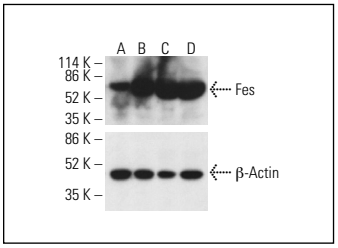
Molecular Weight of Fes: 93 kDa.

Positive Controls: human heart extract: sc-363763, THP-1 cell lysate: sc-2238 or HL-60 whole cell lysate: sc-2209.

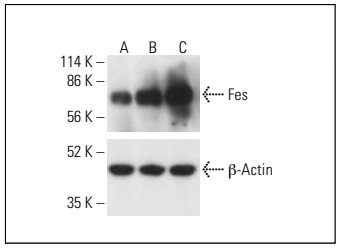
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz® Blocking Reagent: sc-516214 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 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.

DATA



Fes (5A11G5): sc-81706. Western blot analysis of Fes expression in untreated (**A**) and chemically-treated (**B**, **C**, **D**) NIH/3T3 whole cell lysates. Detection reagent used: m-IgG_1 BP-HRP: sc-525408. β-Actin (C4): sc-47778 used as loading control. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



Fes (5A11G5): sc-81706. Western blot analysis of Fes expression in untreated (**A**), and chemically-treated (**B**, **C**) HeLa whole cell lysates. Detection reagent used: m-IgG_1 BP-HRP: sc-525408. β-Actin (C4): sc-47778 used as loading control. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

RESEARCH USE

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