

Fes (E-1): sc-166371

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; Fes (mouse) mapping to 7 D3.

SOURCE

Fes (E-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 18-44 near the N-terminus of Fes of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166371 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Fes (E-1) is recommended for detection of Fes of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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

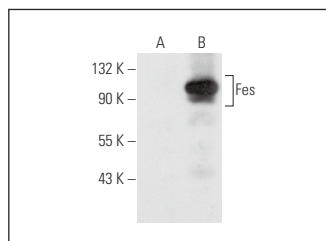
Molecular Weight of Fes: 93 kDa.

Positive Controls: M1 whole cell lysate: sc-364782, AMJ2-C8 whole cell lysate: sc-364366 or Fes (h): 293T Lysate: sc-114396.

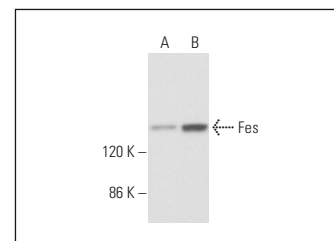
RECOMMENDED SUPPORT REAGENTS

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 (E-1): sc-166371. Western blot analysis of Fes expression in non-transfected: sc-117752 (A) and human Fes transfected: sc-114396 (B) 293T whole cell lysates.



Fes (E-1): sc-166371. Western blot analysis of Fes expression in M1 (A) and AMJ2-C8 (B) whole cell lysates.

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.