

Fes (D-9): sc-377179

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

- 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.
- 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.
- Izuhara, K., et al. 1994. Interaction of the *c-Fes* proto-oncogene product with the interleukin-4 receptor. *J. Biol. Chem.* 269: 18623-18629.
- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: FES (human) mapping to 15q26.1; Fes (mouse) mapping to 7 D3.

SOURCE

Fes (D-9) is a mouse monoclonal antibody raised against amino acids 758-822 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.

Fes (D-9) is available conjugated to agarose (sc-377179 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377179 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377179 PE), fluorescein (sc-377179 FITC), Alexa Fluor® 488 (sc-377179 AF488), Alexa Fluor® 546 (sc-377179 AF546), Alexa Fluor® 594 (sc-377179 AF594) or Alexa Fluor® 647 (sc-377179 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377179 AF680) or Alexa Fluor® 790 (sc-377179 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

Fes (D-9) 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), immunohistochemistry (including paraffin-embedded sections) (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.

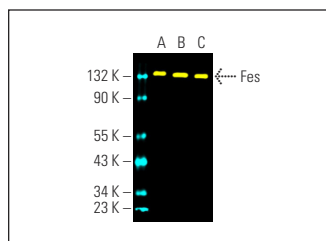
Molecular Weight of Fes: 93 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, THP-1 cell lysate: sc-2238 or K-562 whole cell lysate: sc-2203.

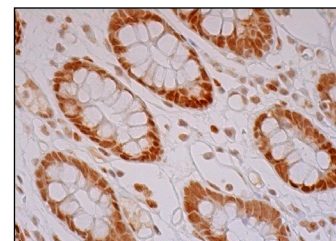
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Fes (D-9) Alexa Fluor® 488: sc-377179 AF488. Direct fluorescent western blot analysis of Fes expression in THP-1 (A), HEL 92.1.7 (B) and K-562 (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 647: sc-516791.



Fes (D-9): sc-377179. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing nuclear staining of glandular cells.

STORAGE

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

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