

Flt-3/Flk-2 (8H5): sc-101343

BACKGROUND

Stem cell tyrosine kinase (STK-1) has been cloned from a CD34⁺ hematopoietic stem cell enriched library and identified as the human homolog of a previously identified gene of mouse origin, designated either Flk-2 or Flt-3. The STK-1 cDNA encodes a protein of 993 amino acids with 85% identity to Flt-3/Flk-2. STK-1 is a member of the type III receptor tyrosine kinase family that includes Kit (steel factor receptor), Fms and PDGF. STK-1 expression in blood and marrow is restricted to CD34⁺ cells, a population greatly enriched for hematopoietic stem/progenitor cells. STK-1 antiserum recognizes two polypeptides in these cells. The mouse homolog of STK-1, designated Flt-3/Flk-2, is expressed at high levels in hematopoietic cells and also in neural, gonadal, hepatic and placental tissues. It has been suggested that STK-1 and its murine homolog Flt-3/Flk-2 may function as growth factor receptors on hematopoietic stem and/or progenitor cells.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: FLT3 (human) mapping to 13q12.2; Flt3 (mouse) mapping to 5 G3.

SOURCE

Flt-3/Flk-2 (8H5) is a mouse monoclonal antibody raised against recombinant Flt-3/Flk-2 of mouse 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.

APPLICATIONS

Flt-3/Flk-2 (8H5) is recommended for detection of Flt-3/Flk-2 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 immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with other PDGFR family members.

Suitable for use as control antibody for Flt-3/Flk-2 siRNA (h): sc-29320, Flt-3/Flk-2 siRNA (m): sc-35396, Flt-3/Flk-2 shRNA Plasmid (h): sc-29320-SH, Flt-3/Flk-2 shRNA Plasmid (m): sc-35396-SH, Flt-3/Flk-2 shRNA (h) Lentiviral Particles: sc-29320-V and Flt-3/Flk-2 shRNA (m) Lentiviral Particles: sc-35396-V.

Molecular Weight of Flt-3/Flk-2 polypeptides: 160/130 kDa.

Positive Controls: THP-1 cell lysate: sc-2238 or mouse brain extract: sc-2253.

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.

STORAGE

Store at 4° C, **DO 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.

PROTOCOLS

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



See **Flt-3/Flk-2 (SF1.340): sc-19635** for Flt-3/Flk-2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.