

SHIP-1 (32): sc-136066

BACKGROUND

The major translational product of the v-Fms oncogene, originally isolated from the McDonough strain of feline sarcoma virus, has been identified as a glycoprotein with intrinsic tyrosine kinase activity. The v-Fms human cellular homolog, c-Fms, has been molecularly cloned and mapped to band q34 on chromosome 5, and identified as the receptor for hematopoietic ligand, CSF-1. Ligand-induced activation of the intrinsic CSF-1R protein tyrosine kinase triggers its interaction with cytoplasmic effector molecules. One such effector molecule, SHIP-1 p145 (SH2-containing-inositol phosphatase), associates with activated Fms. SHIP-1 contains two phosphotyrosine-binding domains (PTB), a unique amino terminal SH2 domain, a proline-rich region, and two highly conserved motifs found among inositol phosphate 5-phosphatases. SHIP-1 displays both phosphatidylinositol 3,4,5-triphosphate and inositol 1,3,4,5-tetrakisphosphate polyphosphate 5-phosphatase activity. Evidence suggests that SHIP-1 may modulate Ras signaling in addition to inositol signaling pathways.

REFERENCES

1. Groffen, J., et al. 1983. Chromosomal localization of the human c-Fms oncogene. *Nucleic Acids Res.* 11: 6331-6341.
2. Sherr, C.J., et al. 1985. The c-Fms proto-oncogene product is related to the receptor for the mononuclear phagocyte growth factor, CSF-1. *Cell* 41: 665-676.
3. Roussel, M.F., et al. 1987. Transforming potential of c-Fms proto-oncogene (CSF-1 receptor). *Nature* 325: 549-552.
4. Sherr, C.J., et al. 1991. The colony-stimulating factor 1 receptor (Fms): signal transduction and hematopoietic cell transformation. In *The Origins of Human Cancer*. Cold Spring Harbor, New York. Cold Spring Harbor Laboratory Press.
5. Matsushime, H., et al. 1991. Colony-stimulating factor 1 regulates novel cyclins during the G₁ phase of the cell cycle. *Cell* 65: 701-713.

CHROMOSOMAL LOCATION

Genetic locus: INPP5D (human) mapping to 2q37.1; Inpp5d (mouse) mapping to 1 D.

SOURCE

SHIP-1 (32) is a mouse monoclonal antibody raised against amino acids 16-135 of SHIP-1 of mouse origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% 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

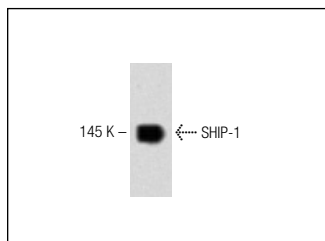
SHIP-1 (32) is recommended for detection of SHIP-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for SHIP-1 siRNA (h): sc-36490, SHIP-1 siRNA (m): sc-36491, SHIP-1 shRNA Plasmid (h): sc-36490-SH, SHIP-1 shRNA Plasmid (m): sc-36491-SH, SHIP-1 shRNA (h) Lentiviral Particles: sc-36490-V and SHIP-1 shRNA (m) Lentiviral Particles: sc-36491-V.

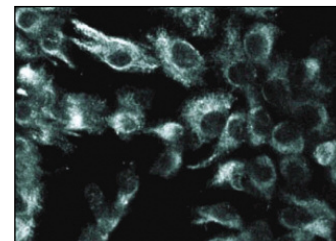
Molecular Weight of SHIP-1: 145 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, rat spleen extract: sc-2397 or rat testis extract: sc-2400.

DATA



SHIP-1 (32): sc-136066. Western blot analysis of SHIP-1 expression in rat spleen tissue extract.



SHIP-1 (32): sc-136066. Immunofluorescence staining of ES-2 cells showing cytoplasmic localization.

RESEARCH USE

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

PROTOCOLS

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