

SHIP-1 (V-19): sc-1963

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. 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 (V-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SHIP-1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1963 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

SHIP-1 (V-19) is recommended for detection of SHIP-1 p145 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)], 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).

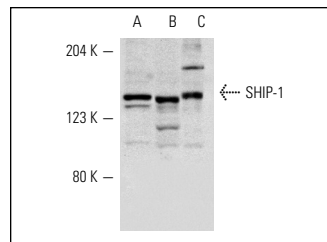
SHIP-1 (V-19) is also recommended for detection of SHIP-1 p145 in additional species, including equine and bovine.

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.

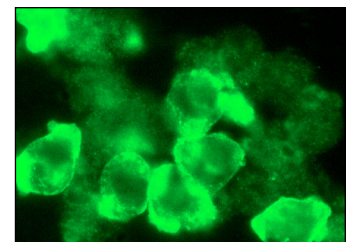
Molecular Weight of SHIP-1: 145 kDa.

Positive Controls: rat testis extract: sc-2400, THP-1 cell lysate: sc-2238 or BYDP whole cell lysate: sc-364368.

DATA



SHIP-1 (V-19): sc-1963. Western blot analysis of SHIP-1 expression in BYDP (A), THP-1 (B) whole cell lysates and rat testis extract (C).



SHIP-1 (V-19): sc-1963. Immunofluorescence staining of methanol-fixed BYDP cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Koch, A., et al. 2005. The SH2-domain-containing inositol 5-phosphatase (SHIP)-2 binds to c-Met directly via tyrosine residue 1,356 and involves hepatocyte growth factor (HGF)-induced lamellipodium formation, cell scattering and cell spreading. *Oncogene* 24: 3436-3447.
2. O'Connell, R.M., et al. 2009. Inositol phosphatase SHIP1 is a primary target of miR-155. *Proc. Natl. Acad. Sci. USA* 106: 7113-7118.
3. Kulemzin, S.V., et al. 2011. FCRL6 receptor: expression and associated proteins. *Immunol. Lett.* 134: 174-182.


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Try **SHIP-1 (P1C1): sc-8425** or **SHIP-1 (F-5): sc-271426**, our highly recommended monoclonal alternatives to SHIP-1 (V-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SHIP-1 (P1C1): sc-8425**.