

PYST2 (E-18): sc-47669

BACKGROUND

Mitogen-activated protein (MAP) kinases are a large class of proteins involved in signal transduction pathways that are activated by a range of stimuli and mediate a number of physiological and pathological changes in the cell. Dual specificity phosphatases (DSPs) are a subclass of the protein tyrosine phosphatase (PTP) gene superfamily, which are selective for dephosphorylating critical phosphothreonine and phosphotyrosine residues within MAP kinases. DSP gene expression is induced by a host of growth factors and/or cellular stresses, thereby negatively regulating MAP kinase superfamily members including MAPK/ERK, SAPK/JNK and p38. PYST2 inactivates MAPK/ERK, thereby regulating the MAP kinase signaling pathway. PYST2 is overexpressed in patients with acute myelogenous leukemia (AML).

REFERENCES

1. Keyse, S.M. 1995 An emerging family of dual specificity MAP kinase phosphatases. *Biochim. Biophys. Acta* 1265: 152-160.
2. Sun, H. 1998. Functional studies of dual-specificity phosphatases. *Methods Mol. Biol.* 84: 307-318.

CHROMOSOMAL LOCATION

Genetic locus: DUSP7 (human) mapping to 3p21.2; Dusp7 (mouse) mapping to 9 F1; Dusp6 (mouse) mapping to 10 D1.

SOURCE

PYST2 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PYST2 of human 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-47669 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.

APPLICATIONS

PYST2 (E-18) is recommended for detection of PYST2 and MKP-3 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).

PYST2 (E-18) is also recommended for detection of PYST2 and MKP-3 in additional species, including equine, canine, bovine and porcine.

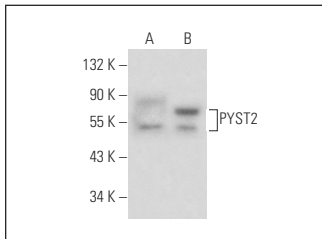
Molecular Weight of PYST2: 41 kDa.

Positive Controls: PYST2 (h): 293 Lysate: sc-158908 or rat heart extract: sc-2393.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PYST2 (E-18): sc-47669. Western blot analysis of PYST2 expression in non-transfected: sc-110760 (A) and human PYST2 transfected: sc-158908 (B) 293 whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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


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Try **PYST2 (D-8): sc-377106** or **PYST2 (C-9): sc-377381**, our highly recommended monoclonal alternatives to PYST2 (E-18).