

# NSP3 (J-16.1): sc-100792

## BACKGROUND

The Eph family of receptor tyrosine kinases has been implicated in many developmental patterning processes, including cell segregation, cell migration and axon guidance. An intermediate that is involved in the signaling pathways of the Eph receptors is novel SH2-containing protein 3 (NSP3, also designated SH2 domain-containing Eph receptor-binding protein 1, SHEP1, Cas or HEF1 associated signal transducer), expressed in both the embryonic and adult brain. NSP3 contains an Src homology 2 domain that binds to a conserved tyrosine-phosphorylated motif in the juxtamembrane region of the EphB2 receptor. NSP3 may itself be a target of EphB2 kinase activity since it becomes heavily tyrosine-phosphorylated in cells expressing activated EphB2. NSP3 directly links activated, tyrosine-phosphorylated Eph receptors to small Ras superfamily GTPases.

## REFERENCES

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- Dodelet, V.C., Pazzagli, C., Zisch, A.H., Hauser, C.A. and Pasquale, E.B. 1999. A novel signaling intermediate, SHEP1, directly couples Eph receptors to R-Ras and Rap1A. *J. Biol. Chem.* 274: 31941-31946.

## CHROMOSOMAL LOCATION

Genetic locus: SH2D3C (human) mapping to 9q34.11; Sh2d3c (mouse) mapping to 2 B.

## SOURCE

NSP3 (J-16.1) is a mouse monoclonal antibody raised against recombinant NSP3 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

NSP3 (J-16.1) is recommended for detection of SH2 domain of NSP3 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), 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 NSP3 siRNA (h): sc-44855, NSP3 siRNA (m): sc-44856, NSP3 shRNA Plasmid (h): sc-44855-SH, NSP3 shRNA Plasmid (m): sc-44856-SH, NSP3 shRNA (h) Lentiviral Particles: sc-44855-V and NSP3 shRNA (m) Lentiviral Particles: sc-44856-V.

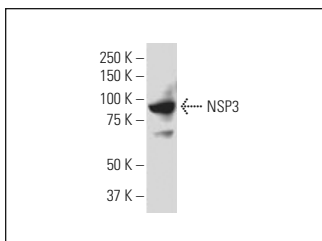
Molecular Weight of NSP3: 94 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or HeLa whole cell lysate: sc-2200.

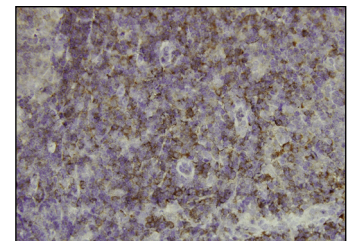
## RECOMMENDED SUPPORT REAGENTS

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



NSP3 (J-16.1): sc-100792. Western blot analysis of NSP3 expression in HeLa nuclear extract.



NSP3 (J-16.1): sc-100792. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lymph node tissue showing membrane and cytoplasmic localization.

## 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.