

# Eps8 (M-238): sc-1841

## BACKGROUND

Elucidation of the mechanism by which receptor tyrosine kinases (RTKs) modulate cellular physiology in response to stimuli is critical to the understanding of growth regulation. Miscues in RTK signaling pathways can result in cellular transformation and ultimately in cancer. 2 novel EGF receptor substrates designated EGF-receptor pathway substrates 8 and 15, or Eps8 and Eps15, have been described. Eps8 and Eps15 become tyrosine phosphorylated subsequent to EGF stimulation. Overexpression of Eps15 in NIH/3T3 cells causes cellular transformation, implying involvement in the regulation of cell proliferation. Eps15 is capable of binding the amino-terminal portion of Crk via a conserved proline-rich domain, characteristic of all Crk binding proteins. Overexpression of Eps8 in both fibroblasts and hematopoietic cells results in an increased mitogenic response to EGF. Eps8 has been shown to associate with the EGF receptor despite its lack of a functional SH2 domain. Further characterization suggests the protein has both a PH domain and a SH3 domain, the functional significance of which are not yet known.

## CHROMOSOMAL LOCATION

Genetic locus: EPS8 (human) mapping to 12p12.3; Eps8 (mouse) mapping to 6 G1.

## SOURCE

Eps8 (M-238) is a rabbit polyclonal antibody raised against amino acids 583-821 of Eps8 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.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

Eps8 (M-238) is recommended for detection of Eps8 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).

Eps8 (M-238) is also recommended for detection of Eps8 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Eps8 siRNA (h): sc-40503, Eps8 siRNA (m): sc-40504, Eps8 shRNA Plasmid (h): sc-40503-SH, Eps8 shRNA Plasmid (m): sc-40504-SH, Eps8 shRNA (h) Lentiviral Particles: sc-40503-V and Eps8 shRNA (m) Lentiviral Particles: sc-40504-V.

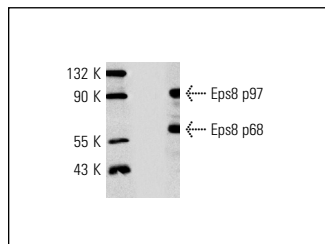
Molecular Weight of Eps8: 97 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, NIH/3T3 + PDGF cell lysate: sc-3803 or SCC-4 whole cell lysate: sc-364363.

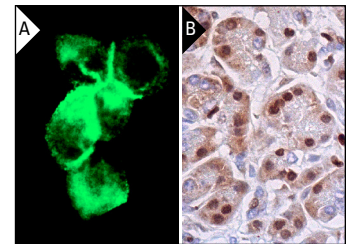
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



Eps8 (M-238): sc-1841. Western blot analysis of Eps8 expression in NIH/3T3 whole cell lysate.



Eps8 (M-238): sc-1841. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing membrane staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic and nuclear staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

- Yang, T.P., et al. 2010. Mithramycin inhibits human epithelial carcinoma cell proliferation and migration involving downregulation of Eps8 expression. *Chem. Biol. Interact.* 183: 181-186.
- Cunningham, D.L., et al. 2013. Novel binding partners and differentially regulated phosphorylation sites clarify eps8 as a multi-functional adaptor. *PLoS ONE* 8:e61513.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Eps8 (F-8): sc-390257** or **Eps8 (D-4): sc-398643**, our highly recommended monoclonal alternatives to Eps8 (M-238).