SANTA CRUZ BIOTECHNOLOGY, INC.

p-Ron β (Tyr 1353): sc-16839

BACKGROUND

Ron, also designated STK in mice, is a transmembrane receptor tyrosine kinase that is a member of the Met family and displays 63% homology with Met. The gene encoding human Ron maps to chromosome 3p21.31 and is expressed as a glycosylated precursor, which is cleaved to produce a heterodimer of alpha and β disulfide-linked chains. Ron is expressed in several epithelial tissues, granulocytes and monocytes, and it is the membrane bound receptor for macrophage-stimulating protein (MSP), a multifunctional factor that regulates cell adhesion, motility, growth and survival. Binding of MSP to Ron stimulates tyrosine phosphorylation on Tyr 1238 and Tyr 1239. This phosphorylation leads to a upregulation of Ron catalytic activity and subsequent activation of downstream signaling molecules. In addition, Ron contains putative autophosphorylation sites on Tyr 1353 and Tyr 1360. Ron is thought to play a role in early embryonic development and in the inflammatory response.

REFERENCES

1. Ronsin, C., et al. 1993. A novel putative receptor protein tyrosine kinase of the met family. Oncogene 8: 1195-1202.
2. Gaudino, G., et al. 1994. Ron is a heterodimeric tyrosine kinase receptor activated by the HGF homologue MSP. EMBO J. 13: 3524-3532.
3. Wang, M.H., et al. 1994. Identification of the Ron gene product as the receptor for the human macrophage stimulating protein. Science 266: 117-119.
4. Tamagnone, L. and Comoglio, P.M. 1997. Control of invasive growth by hepatocyte growth factor (HGF) and related scatter factors. Cytokine Growth Factor Rev. 8: 129-142.

CHROMOSOMAL LOCATION

Genetic locus: MST1R (human) mapping to 3p21.31; Mst1r (mouse) mapping to 9 F1.

SOURCE

p-Ron β (Tyr 1353) is available as either goat (sc-16839) or rabbit (sc-16839-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Tyr 1353 phosphorylated Ron 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-16839 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.

PROTOCOLS

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

APPLICATIONS

p-Ron β (Tyr 1353) is recommended for detection of Tyr 1353 phosphorylated Ron β 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).

p-Ron β (Tyr 1353)-R is also recommended for detection of correspondingly phosphorylated Ron β in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Ron siRNA (h): sc-36434, Ron siRNA (m): sc-36435, Ron shRNA Plasmid (h): sc-36434-SH, Ron shRNA Plasmid (m): sc-36435-SH, Ron shRNA (h) Lentiviral Particles: sc-36434-V and Ron shRNA (m) Lentiviral Particles: sc-36435-V.

Molecular Weight of p-Ron α chain: 35 kDa.

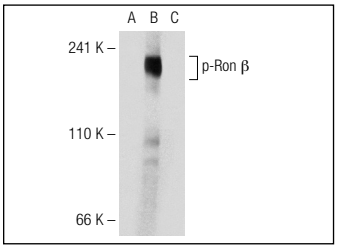
Molecular Weight of p-Ron β chain: 150 kDa.

Positive Controls: HeLa whole cell lysate : sc-2200.

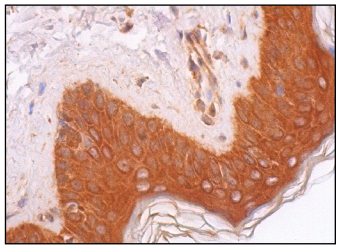
RECOMMENDED SECONDARY REAGENTS

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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



p-Ron β (Tyr 1353)-R: sc-16839-R. Western blot analysis of Ron β phosphorylation in untreated (**A**), pervanadate treated (**B**) and pervanadate and lambda protein phosphatase treated (**C**) A-431 whole cell lysates.



p-Ron β (Tyr 1353)-R: sc-16839-R. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of fibroblasts, keratinocytes, Langerhans cells and melanocytes.

RESEARCH USE

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