

# p-Ron $\beta$ (Tyr 1238/Tyr 1239): sc-16838

## 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 and is expressed as a glycosylated precursor, which is cleaved to produce a heterodimer of  $\alpha$  and  $\beta$  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

- Ronsin, C., et al. 1993. A novel putative receptor protein tyrosine kinase of the met family. *Oncogene* 8: 1195-1202.
- Gaudino, G., et al. 1994. RON is a heterodimeric tyrosine kinase receptor activated by the HGF homologue MSP. *EMBO J.* 13: 3524-3532.
- 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.
- 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.
- Muraoka, R.S., et al. 1999. The Ron/STK receptor tyrosine kinase is essential for peri-implantation development in the mouse. *J. Clin. Invest.* 103: 1277-1285.
- Danilkovitch-Miagkova, A. and Leonard, E.J. 2001. Cross-talk between RON receptor tyrosine kinase and other transmembrane receptors. *Histol. Histopathol.* 16: 623-631.

## CHROMOSOMAL LOCATION

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

## SOURCE

p-Ron  $\beta$  (Tyr 1238/Tyr 1239) is available as either goat (sc-16838) or rabbit (sc-16838-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing phosphorylated Tyr 1238 and Tyr 1239 of Ron  $\beta$  of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16838 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

p-Ron  $\beta$  (Tyr 1238/Tyr 1239) is recommended for detection of Tyr 1238 and 1239 dually phosphorylated Ron  $\beta$  of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

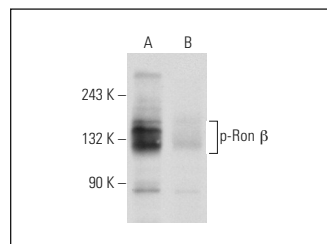
Suitable for use as control antibody for Ron siRNA (h): sc-36434, Ron siRNA (m): sc-36435, Ron shRNA Plasmid (h): sc-36434-SH, Ron shRNA Plasmid (m): sc-36435-SH, Ron shRNA (h) Lentiviral Particles: sc-36434-V and Ron shRNA (m) Lentiviral Particles: sc-36435-V.

Molecular Weight of p-Ron  $\alpha$  chain: 35 kDa.

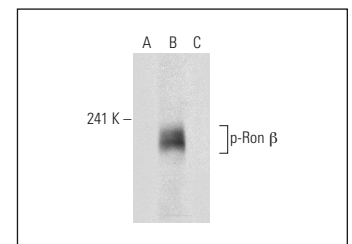
Molecular Weight of p-Ron  $\beta$  chain: 150 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or A-431 + pervanadate cell lysate: sc-24654.

## DATA



p-Ron  $\beta$  (Tyr 1238/Tyr 1239)-R: sc-16838-R. Western blot analysis of Ron  $\beta$  phosphorylation in untreated (A) and lambda protein phosphatase treated (B) HeLa whole cell lysates.



p-Ron  $\beta$  (Tyr 1238/Tyr 1239)-R: sc-16838-R. Western blot analysis of Ron  $\beta$  phosphorylation in untreated (A), pervanadate treated (B) and pervanadate and lambda protein phosphatase (sc-200312A) treated (C) A-431 whole cell lysates.

## SELECT PRODUCT CITATIONS

- Eckerich, C., et al. 2009. Ron receptor tyrosine kinase in human gliomas: expression, function, and identification of a novel soluble splice variant. *J. Neurochem.* 109: 969-980.

## 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.