OSCAR (WW07): sc-80266



The Power to Question

BACKGROUND

Osteoclasts regulate homeostasis of bone development. Osteoclast-associated receptor (OSCAR) functions critically in osteoclast differentiation, and is a member of the leukocyte receptor complex (LRC) protein family that plays critical roles in the regulation of both innate and adaptive immune responses. Different from the other LRC members, OSCAR expression is detected specifically in preosteoclasts or mature osteoclasts. The FcRy chain, a signal transducing adaptor molecule for Fc receptors, associates with OSCAR and is involved in the cell surface expression of OSCAR, which regulates differentiation. Human OSCAR is continually expressed during differentiation of CD14+ monocytes into dendritic cells and after maturation.

REFERENCES

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- 4. Mócsai, A., Humphrey, M.B., Van Ziffle, J.A., Hu, Y., Burghardt, A., Spusta, S.C., Majumdar, S., Lanier, L.L., Lowell, C.A. and Nakamura, M.C. 2004. The immunomodulatory adapter proteins DAP12 and Fc receptor γ-chain (FcRγ) regulate development of functional osteoclasts through the Syk tyrosine kinase. Proc. Natl. Acad. Sci. USA 101: 6158-6163.
- Merck, E., de Saint-Vis, B., Scuiller, M., Gaillard, C., Caux, C., Trinchieri, G. and Bates, E.E. 2005. Fc receptor γ-chain activation via hOSCAR induces survival and maturation of dendritic cells and modulates Toll-like receptor responses. Blood 105: 3623-3632.

CHROMOSOMAL LOCATION

Genetic locus: OSCAR (human) mapping to 19q13.42.

SOURCE

 \mbox{OSCAR} (WW07) is a mouse monoclonal antibody raised against the extracellular domain of OSCAR of human origin.

PRODUCT

Each vial contains 100 $\mu g \ lgG_{2b}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and protein stabilizer.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

OSCAR (WW07) is recommended for detection of OSCAR of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000); non cross-reactive with OSCAR of mouse origin.

Suitable for use as control antibody for OSCAR siRNA (h): sc-45304, OSCAR shRNA Plasmid (h): sc-45304-SH and OSCAR shRNA (h) Lentiviral Particles: sc-45304-V.

Molecular Weight of OSCAR: 31 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

SELECT PRODUCT CITATIONS

1. Kim, K., Kim, J.H., Kim, I., Seong, S. and Kim, N. 2018. TRIM38 regulates $NF_{\kappa}B$ activation through TAB2 degradation in osteoclast and osteoblast differentiation. Bone 113: 17-28.

RESEARCH USE

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

PROTOCOLS

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

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