

# Integrin $\alpha$ M (OX42): sc-53086

## BACKGROUND

Integrin  $\alpha$ M (complement component receptor 3  $\alpha$  chain, CD11b (p170), macrophage antigen  $\alpha$  polypeptide, cell surface glycoprotein Mac-1  $\alpha$  sub-unit, CR3  $\alpha$  chain, MAC1A, MO1A, ITGAM) is a cell adhesion molecule that acts as a receptor for cell surface ligands such as intracellular adhesion molecules (ICAMs) or soluble ligands. Integrins are heterodimeric proteins that contain an  $\alpha$  chain and  $\beta$  chain. Integrin  $\alpha$ M combines with Integrin  $\beta$ 2 to form a leukocyte-specific integrin referred to as macrophage receptor 1 (Mac-1) or inactivated-C3b (iC3b) receptor 3 (CR3). Integrin  $\alpha$ M/ $\beta$ 2 is important in the adherence of neutrophils and monocytes to stimulated endothelium, and also in the phagocytosis of complement coated particles.

## CHROMOSOMAL LOCATION

Genetic locus: Itgam (mouse) mapping to 7 F3.

## SOURCE

Integrin  $\alpha$ M (OX42) is a mouse monoclonal antibody raised against peritoneal macrophages of rat origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin  $\alpha$ M (OX42) is available conjugated to agarose (sc-53086 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53086 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53086 PE), fluorescein (sc-53086 FITC), Alexa Fluor® 488 (sc-53086 AF488), Alexa Fluor® 546 (sc-53086 AF546), Alexa Fluor® 594 (sc-53086 AF594) or Alexa Fluor® 647 (sc-53086 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53086 AF680) or Alexa Fluor® 790 (sc-53086 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Integrin  $\alpha$ M (OX42) is recommended for detection of Integrin  $\alpha$ M of mouse and rat origin by 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for Integrin  $\alpha$ M siRNA (m): sc-35693, Integrin  $\alpha$ M shRNA Plasmid (m): sc-35693-SH and Integrin  $\alpha$ M shRNA (m) Lentiviral Particles: sc-35693-V.

Molecular Weight of Integrin  $\alpha$ M: 170 kDa.

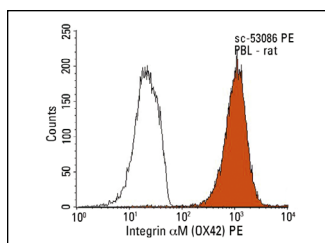
## STORAGE

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.

## DATA



Integrin  $\alpha$ M (OX42): sc-53086. Indirect FCM analysis of rat peripheral blood leukocytes stained with Integrin  $\alpha$ M (OX42), followed by PE-conjugated goat anti-mouse IgG: sc-3738. Black line histogram represents the isotype control, normal mouse IgG<sub>2a</sub>: sc-3878.

## SELECT PRODUCT CITATIONS

- Gao, J., et al. 2006. Effect of music therapy on pain behaviors in rats with bone cancer pain. *J. BUON* 21: 466-472.
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- Zhu, H., et al. 2017. Transient upregulation of Nav1.6 expression in the genu of corpus callosum following middle cerebral artery occlusion in the rats. *Brain Res. Bull.* 132: 20-27.
- Lai, C.Y., et al. 2018. GluN2B/CaMKII mediates CFA-induced hyperalgesia via HDAC4-modified spinal COX2 transcription. *Neuropharmacology* 135: 536-546.
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- Niu, W., et al. 2020. Surgery-induced cognitive dysfunction is alleviated through triggering receptor expressed on myeloid cells 2. *Acta Histochem.* 122: 151553.
- Al Sabaani, N. 2021. Inhibition of protein kinase R by C16 protects the retinal ganglion cells from hypoxia-induced oxidative stress, inflammation, and apoptosis. *Curr. Eye Res.* 46: 719-730.

## PROTOCOLS

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