SONY

Product Data Sheet

PE/Dazzle™ 594 anti-mouse CD200 (OX2)

Catalog # / Size: 1219100 / 100 µg
1219095 / 25 µg

Clone: OX-90

Isotype: Rat IgG2a, κ

Immunogen: Soluble fusion protein of the extracellular region of mouse OX-2 antigen with domains 3 and 4 of rat CD4 fusion protein.

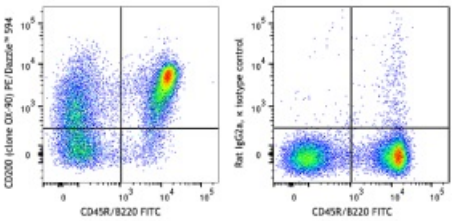
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide

Workshop Number: HCDM listed

Concentration: 0.2



C57BL/6 mouse splenocytes were stained with CD45R/B220 FITC and CD200 (OX2) (clone OX-90) PE/Dazzle™ 594 (left), or rat IgG2a, κ isotype control (right).

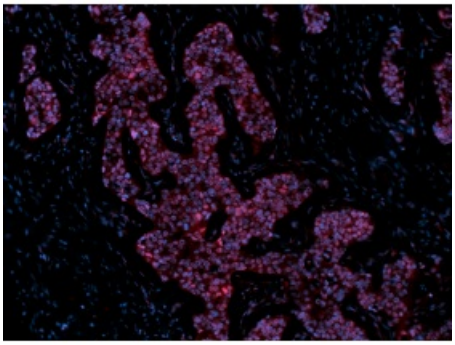
Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.

* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.

Application Notes: Additional reported applications (for the relevant formats) include: immunfluorescence microscopy[4] and immunohistochemical staining[3].



Formalin-fixed paraffin-embedded human breast cancer tissue slices were deparaffinized and rehydrated. Antigen retrieval was done with Tris-Buffered Saline 1X (1.0 M, pH 7.4) at 95°C for 40 minutes, washed with PBS/0.05% Tween 20 twice for five minutes, permeabilized with 0.5% Triton X-100 for ten minutes, and blocked with 5% FBS and 0.2% gelatin for 30 minutes. Then, the slices were stained with 5 µg/mL anti-EGFR (clone A19002A) Alexa Fluor® 647 (red) at 4°C overnight. Nuclei were counterstained with DAPI (green). The image was captured with a 10X objective.

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Application References:

1. Bühring HJ, *et al.* 1991. *Leukemia* 5:841.
2. Vogel W, *et al.* 2002. *Haematologica* 88:126.
3. Osaka M, *et al.* 2011. *Brain Res.* 9:1343. PubMed
4. HonMou O, *et al.* 2011. *Brain.* 134:1790. PubMed
5. Herrera MB, *et al.* 2013. *Hepatology.* 57:311. PubMed
6. Iohara K, *et al.* 2014. *Exp Gerontol.* 52:39. PubMed

Description: CD200 (OX-2 antigen) is a type-1 membrane glycoprotein containing two extracellular Ig-like domains. CD200 a highly conserved type I membrane glycoprotein that is expressed on a variety of cell types including thymocytes, some T cells, endothelial and follicular dendritc cells, B cells, and brain tissue (neurons); but not on NK cells, granulocytes, monocytes, or macrophages. CD200 costimulates T cell proliferation. It may regulate myeloid cell activity in a variety of tissues. CD200 is the ligand for CD200 receptor (CD200R). The CD200 Receptor is restricted to myeloid cells, and it is believed that its engagement with CD200 results in inhibition and/or downregulation of myeloid cell activity. Blocking of CD200/CD200R interactions decreases myeloid cell inhibitory thresholds which results in enhanced immune activation.

Antigen References:

1. Hoek RM, *et al.* 2000. *Science* 290:1768.
2. Gorczynski R, *et al.* 2004. *J. of Immunol.* 172:7744.
3. Gorczynski L, *et al.* 1999. *J. Immunol.* 162:774.
4. Rosenblum MD, *et al.* 2004. *Blood* 103:2691.
5. Zhang S, *et al.* 2004. *J. of Immunol.* 173:6786.
6. Barclay AN, *et al.* 2002. *Trends Immunol.* 23:285.

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