# SANTA CRUZ BIOTECHNOLOGY, INC.

# Erythroid lineage (TER-119): sc-19592



### BACKGROUND

Blood consists of a solid component that includes erythrocytes, leukocytes and platelets, and a liquid component known as plasma, which is a buffered solution of proteins and salts. Erythrocytes are red blood cells that carry oxygen to all human organs and tissues. Erythrocytes are 7-8 um biconcave discs that consist of a lipid membrane and a cellular compartment containing approximately 90% hemoglobin, which is a protein that takes up oxygen as the blood passes through the lungs and releases the oxygen in tissues. In addition to hemoglobin, there are numerous enzymes present in erythrocytes that are necessary for oxygen transport and cell viability. Mature red blood cells are without a nucleus or mitochondria, rely on ATP generation through anaerobic metabolism, and do not synthesize protein, DNA or RNA. Humans normally contain between 4-6 million erythrocytes per cubic millimeter of blood.

# REFERENCES

- 1. Schmid-Schonbein, H., et al. 1984. Biology of red cells: non-nucleated erythrocytes as fluid drop-like cell fragments. Int. J. Microcirc. Clin. Exp. 3: 161-196.
- 2. Janeway, C.A., Jr., et al. 1997. Immunobiology: The immune system in health and disease. New York: Garland Publishing.
- 3. Beilhack, A., et al. 2003. Immune traffic: a functional overview. Lymphat. Res. Biol. 1: 219-234.
- 4. Esmon, C.T. 2004. Interactions between the innate immune and blood coagulation systems. Trends Immunol. 25: 536-542.
- 5. Mempel, T.R., et al. 2004. In vivo imaging of leukocyte trafficking in blood vessels and tissues. Curr. Opin. Immunol. 16: 406-417.
- 6. Williams, I.R. 2004. Chemokine receptors and leukocyte trafficking in the mucosal immune system. Immunol. Res. 29: 283-292.
- 7. Plackett, T.P., et al. 2004. Aging and innate immune cells. J. Leukoc. Biol. 76: 291-299.

#### SOURCE

Erythroid lineage (TER-119) is a rat monoclonal antibody raised against C57B1/6 mouse day-14 fetal liver cells.

# **PRODUCT**

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

Erythroid lineage (TER-119) is available conjugated to agarose (sc-19592 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-19592 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-19592 PE), fluorescein (sc-19592 FITC), Alexa Fluor® 488 (sc-19592 AF488), Alexa Fluor® 546 (sc-19592 AF546), Alexa Fluor® 594 (sc-19592 AF594) or Alexa Fluor® 647 (sc-19592 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-19592 AF680) or Alexa Fluor® 790 (sc-19592 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## **APPLICATIONS**

Erythroid lineage (TER-119) is recommended for detection of the cells of the erythroid lineage in embryonic yolk sac, fetal liver, adult bone marrow, adult peripheral blood and adult lymphoid organs; is a component of the lineage cocktail used in studies of hematopoietic progenitors to detect or deplete cells committed to the hematopoietic lineages of mouse origin by 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).

### DATA



Erythroid lineage (TER-119) PE: sc-19592 PE. FCM analysis of mouse peripheral blood leukocytes

#### **SELECT PRODUCT CITATIONS**

- 1. Sastre, C., et al. 2014. Genetic deletion or TWEAK blocking antibody administration reduce atherosclerosis and enhance plaque stability in mice. J. Cell. Mol. Med. 18: 721-734.
- 2. Kojima, Y., et al. 2016. CD47-blocking antibodies restore phagocytosis and prevent atherosclerosis. Nature 536: 86-90.
- 3. Kim, M.Y., et al. 2018. Mbd2-CP2c loop drives adult-type globin gene expression and definitive erythropoiesis. Nucleic Acids Res. 46: 4933-4949.
- 4. Li, B., et al. 2019. Increased hepcidin in hemorrhagic plaques correlates with iron-stimulated IL-6/STAT3 pathway activation in macrophages. Biochem. Biophys. Res. Commun. 515: 394-400.
- 5. Zheng, G., et al. 2023. SCAP contributes to embryonic angiogenesis by negatively regulating KISS-1 expression in mice. Cell Death Dis. 14: 249.

#### **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.

#### **PROTOCOLS**

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