

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human STRO-1.
Source	Monoclonal Mouse IgM Clone # STRO-1
Purification	IgM-specific Affinity-purified from hybridoma culture supernatant
Immunogen	Human CD34 ⁺ bone marrow cells
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

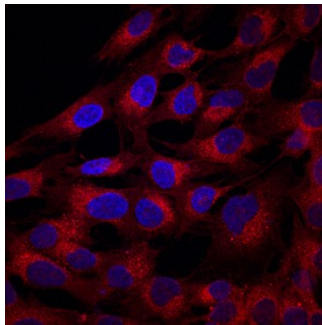
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	2.5 µg/10 ⁶ cells	MG-63 human osteosarcoma cell line
Immunocytochemistry	8-25 µg/mL	See Below
CytoF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Immunocytochemistry



STRO-1 in Human MG-63 Cell Line.
STRO-1 was detected in immersion fixed MG-63 human osteosarcoma cell line using Human STRO-1 Monoclonal Antibody (Catalog # MAB1038) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgM Secondary Antibody (red; Catalog # NL019) (Catalog # NL019), and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

STRO-1 is a cell surface protein expressed by bone marrow stromal cells and erythroid precursors. The frequency of colony forming units-fibroblasts (CFU-F) was enriched 100-fold in the STRO-1⁺/Glycophorin A⁺ population from bone marrow cells (1). The subset of marrow cells that expresses the STRO-1 antigen is capable of differentiating into multiple mesenchymal lineages including hematopoiesis-supportive stromal cells with a vascular smooth muscle-like phenotype, adipocytes, osteoblasts, and chondrocytes (2).

References:

1. Simmons, P.J. and B. Torok-Storb (1991) *Blood* **78**:55.
2. Dennis, J.E. *et al.* (2002) *Cells Tissues Organs* **170**:73.