STRO-1 (STRO-1): sc-47733

BACKGROUND

STRO-1 is a monoclonal IgM derived from mice immunized with human CD34+ bone marrow cells. STRO-1 is a valuable reagent in bone marrow, dental pulp and blood tissue samples for enriching subsets of marrow stromal (mesenchymal, MSCs) cells through recognition of a surface antigen unique to this lineage. MSCs have the capability for renewal and differentiation into various lineages of mesenchymal tissues. These features of MSCs attract a lot of attention from investigators in the context of cell-based therapies of several human diseases. From bone marrow cells, the frequency of fibroblast colony-forming cells (CFU-F) is enriched approximately 100-fold in a STRO-1+glycophorin A- population relative to STRO-1+/glycophorin A+ population. STRO-1+ enriched subset of marrow cells can differentiate into mesenchymal lineages including hematopoiesis-supportive stromal cells with a vascular smooth muscle-like phenotype, adipocytes, osteoblasts and chondrocytes.

REFERENCES


SOURCE

STRO-1 (STRO-1) is a mouse monoclonal antibody raised against CD34+ bone marrow cells of human origin.

PRODUCT

Each vial contains 200 μg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STRO-1 (STRO-1) is available conjugated to agarose (sc-47733 AC), 500 μg/ml of agarose in 1 ml, for IP; to HRP (sc-47733 HRP), 200 µg/ml, for WB, IHC(P) and FCM.

In addition, STRO-1 (STRO-1) is available conjugated to Alexa Fluor® 546 (sc-47733 AF546) or Alexa Fluor® 647 (sc-47733 AF647), 200 μg/ml, for IF, IHC(P) and FCM.

APPLICATIONS

STRO-1 (STRO-1) is recommended for detection of STRO-1 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μg per 1 x 10⁶ cells); may cross-react with murine bone marrow-derived stromal progenitors.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgG, BP-FITC: sc-47733 PCPC5, 100 tests in 2 ml, for IF, IHC(P) and FCM. For research use only, not for use in diagnostic procedures. Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

DATA

STRO-1 (STRO-1) PE: sc-47733 PE. FCM analysis of Glycophorin A negative human bone marrow cells. Quadrant markers were set based on the isotype control, normal mouse IgM: sc-2870. Kindly provided by Beverly Tokar-Storb at Fred Hutchinson Cancer Research Center

SELECT PRODUCT CITATIONS


RESEARCH USE

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