PE Mouse anti-Human Lin-28

Material Number: 563398
Alternate Name: Lin-28A, LIN28A, CSDD1, LIN28, ZCCHC1
Size: 50 tests
Vol. per Test: 5 µl
Clone: 6D1F9
Immunogen: Human Lin-28 Recombinant Protein
Isotype: Mouse IgG1, κ
Reactivity: QC Testing: Human
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description
Lin-28 is an evolutionarily conserved RNA-binding protein that is expressed in embryonic tissue, embryonic stem cells, and some adult tissues (e.g. cardiac and skeletal muscle). Within these cells, it is localized to ribosomes, P-bodies, and stress granules. During embryonic development, Lin-28 acts as a "translational enhancer" by binding to certain mRNAs and increasing their translation efficiency. Additionally, Lin-28 is overexpressed in some human cancer cell lines and is associated with the malignant transformation of cells as well as advanced human malignancies. This role is thought to be tied to the binding of Lin-28 to pre-microRNA of let-7, which in its mature form promotes terminal differentiation of stem cells and suppresses tumors. The binding of Lin-28 to the immature version of let-7 blocks its cleavage into mature microRNA, thereby preventing it from carrying out its function in tumor suppression. Lin-28, in combination with additional factors, has been used to reprogram human somatic cells into induced pluripotent stem cells.

Flow cytometric analysis of Lin-28 expression in human embryonic stem (ES) cells. H9 human ES cells (WiCell, Madison, WI) grown on irradiated mouse embryonic fibroblasts were harvested with Accutase™ Cell Detachment Solution (Cat. No. 561527), fixed with BD Cytofix™ Fixation Buffer (Cat. No. 554655), and permeabilized with BD Phosflow™ Perm Buffer III (Cat. No. 558050). The cells were stained with either PE Mouse IgG1, κ isotype control (dashed line, Cat. No. 554680) or PE Mouse anti-Human Lin-28 monoclonal antibody (solid line) at matched concentrations. Histograms were derived from gated events based on light scattering characteristics of H9 human ES cells. Flow cytometry was performed on a BD LSRFortessa™ flow cytometry system.

Preparation and Storage
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes
Application
Intracellular staining (flow cytometry) Routinely Tested

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>561527</td>
<td>Accutase™ Cell Detachment Solution</td>
<td>100 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>554655</td>
<td>Fixation Buffer</td>
<td>100 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>558050</td>
<td>Perm Buffer III</td>
<td>125 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>554680</td>
<td>PE Mouse IgG1, κ Isotype Control</td>
<td>0.1 mg</td>
<td>MOPC-21</td>
</tr>
<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 ml</td>
<td>(none)</td>
</tr>
</tbody>
</table>

BD Biosciences
bd Biosciences.com
877.232.8895
For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited. For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD
Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use $1 \times 10^6$ cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Accutase is a registered trademark of Innovative Cell Technologies, Inc.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References


Darr H, Bervenistny N. Genetic analysis of the role of the reprogramming gene LIN-28 in human embryonic stem cells. Stem Cells. 2008; . (Biology)


