Technical Data Sheet

Purified Rat Anti-Human Cutaneous Lymphocyte Antigen

Product Information

Material Number: 550407
Alternate Name: CLA; PSGL-1; CD162; P-selectin glycoprotein ligand 1; SELPL; SELPLG
Size: 1.0 ml
Concentration: 250 µg/ml
Clone: HECA-452
Immunogen: Lymphocyte-depleted Stromal Preparation of Tonsil
Isotype: Rat (WI) IgM, κ
Reactivity: QC Testing: Human
Reported Reactivity: Mouse
Workshop: V S075
Storage Buffer: Aqueous buffered solution containing BSA, goat serum, and ≤0.09% sodium azide.

Description

The HECA-452 monoclonal antibody specifically reacts with Cutaneous Lymphocyte Associated Antigen (CLA), a carbohydrate domain shared by sialyl Lewis[x] (sLe[x]) and sialyl Lewis[a] (sLe[a]) antigens. It serves as a ligand for selectins including CD62E (E-selectin; ELAM-1). CLA is expressed on high endothelium and on lymphocytes including most T lymphocytes infiltrating cutaneous sites of inflammation. Amongst peripheral blood cells, it is expressed on monocytes and granulocytes and a subset of lymphocytes. The HECA-452 antibody is also reportedly crossreactive with the mouse CLA carbohydrate epitope that is transiently expressed by PSGL-1/CD162 on activated T cells. A number of studies suggest that CLA plays an important role in supporting leucocyte adhesive interactions and migration into extravascular tissues during inflammation.

Preparation and Storage

Store undiluted at 4°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

<table>
<thead>
<tr>
<th>Application</th>
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<tbody>
<tr>
<td>Flow cytometry</td>
<td>Routinely Tested</td>
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<tr>
<td>Immunohistochemistry-frozen</td>
<td>Tested During Development</td>
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<tr>
<td>Immunohistochemistry-formalin (antigen retrieval required)</td>
<td>Tested During Development</td>
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Recommended Assay Procedure:

Immunohistochemistry: The HECA-452 antibody is recommended to test for immunohistochemical staining of acetone-fixed frozen sections and formalin-paraffin sections with citrate pre-treatment. Tissue tested was human skin and tonsil. The antibody stains endothelial cells and epithelial cells. In the skin monocytic cells and some Langerhans cells were stained. The isotype control recommended for use with this antibody is purified rat IgM (Cat. No. 550342). For optimal indirect immunohistochemical staining, the HECA-452 antibody should be titrated (1:10 to 1:50 dilution) and visualized via a three-step staining procedure in combination with biotin conjugated anti-rat IgM (Cat. No. 550330) as the secondary antibody and Streptavidin-HRP (Cat. No. 550946) together with the DAB detection system (Cat. No. 550880).
Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tbody>
<tr>
<td>550946</td>
<td>Streptavidin HRP</td>
<td>50 ml</td>
<td>(none)</td>
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<tr>
<td>550342</td>
<td>Purified Rat IgM, κ Isotype Control</td>
<td>1.0 ml</td>
<td>R4-22</td>
</tr>
<tr>
<td>550330</td>
<td>Biotin Mouse Anti-Rat IgM</td>
<td>1.0 ml</td>
<td>G53-238</td>
</tr>
<tr>
<td>550880</td>
<td>DAB Substrate Kit</td>
<td>500 tests</td>
<td>(none)</td>
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<tr>
<td>559148</td>
<td>Antibody Diluent for IHC</td>
<td>125 ml</td>
<td>(none)</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. This antibody has been developed for the immunohistochemistry application. However, a routine immunohistochemistry test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance.
3. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
4. 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.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. An isotype control should be used at the same concentration as the antibody of interest.

References