Technical Data Sheet

Purified Mouse Anti-5-Lipoxygenase

Product Information

Material Number: 610695
Size: 150 µg
Concentration: 250 µg/ml
Clone: 33/5-Lipoxygenase
Immunogen: Human 5-Lipoxygenase aa. 442-590
Isotype: Mouse IgG1
Reactivity: QC Testing: Chicken
Target MW: 79 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

5-Lipoxygenase (5-LO) is the initial enzyme that converts arachidonic acid to leukotrienes, which are important inflammatory and vasoconstrictive metabolites. It is activated in response to a number of stimuli, such as differentiation and allergen challenges. The 5-LO gene, abundantly expressed in placenta, lung, and leukocytes, encodes a protein of 674 amino acids with an apparent molecular weight of 78kDa. 5-LO is a Ca2+ and ATP-dependent enzyme that translocates from the cytosol to either a nuclear or plasma membrane compartment following activation. A proline-rich domain of 5-LO (amino acids 566-577) has been identified as a binding site for the PTyr-binding protein, Grb2. This Grb2 site links tyrosine kinases with activation and redistribution of 5-LO. Furthermore, tyrosine kinase inhibitors increase the activity of 5-LO and block the enzyme's subcellular redistribution.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.

Application Notes

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<th>Application</th>
<th>Routine Tested</th>
<th>Tested During Development</th>
<th>Not Recommended</th>
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<tr>
<td>Western blot</td>
<td>Routinely Tested</td>
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<tr>
<td>Immunofluorescence</td>
<td>Tested During Development</td>
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<tr>
<td>Immunoprecipitation</td>
<td>Not Recommended</td>
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<tr>
<td>Immunohistochemistry</td>
<td>Not Recommended</td>
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### Suggested Companion Products

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<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
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<tbody>
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<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1.0 ml</td>
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<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Ig</td>
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<td>Polyclonal</td>
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<tr>
<td>611478</td>
<td>SL-29 Cell Lysate</td>
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### Product Notices
1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

### References