**Anti-Malin**

**Catalog#** SMC-444D

**Size:** 100µg

PO Box 55036 Cadboro Bay
3825 Cadboro Bay Rd
Victoria, BC V8N 4G0, Canada

This product is for *in vitro* research use only and is not intended for use in humans or animals

<table>
<thead>
<tr>
<th>Product</th>
<th>Mouse anti-Malin antibody; monoclonal</th>
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<tbody>
<tr>
<td>Clone</td>
<td>S85-18</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Fusion protein amino acids 2-125 (N-terminus encompassing RING domain) of human Malin (accession #Q6VVB1). 86% identical to rat, and 77% identical to mouse.</td>
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<tr>
<td>Host and Subclass</td>
<td>Mouse, IgG1</td>
</tr>
<tr>
<td>Cited Applications</td>
<td>WB, ICC</td>
</tr>
<tr>
<td>Specificity</td>
<td>Detects a 42 kDa protein.</td>
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<tr>
<td>Species cross-reactivity</td>
<td>Human</td>
</tr>
<tr>
<td>Format</td>
<td>Protein G purified in PBS pH 7.2, 0.09% NaN₃ and 50% glycerol.</td>
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<tr>
<td>Concentration and Working Dilution</td>
<td>1mg/ml; 1:1000 (WB)</td>
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<tr>
<td>Storage and stability</td>
<td>-20°C; 1 year+; shipped on cold packs or ambient</td>
</tr>
</tbody>
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**Selected References**


**Scientific Background**

Progressive myoclonic epilepsy type 2 (EPM2), also called Lafora disease, is an autosomal recessive disease characterized by grand mal seizures and/or myoclonus at about 15 years of age. Rapid and severe mental deterioration follows, often with psychotic features. Survival is less than 10 years after onset. Starch-like, endoplasmic reticulum-associated polyglucosans, called Lafora bodies, can be observed in brain, muscle, liver and heart. One cause of Lafora disease is due to mutations in NHLRC1, the gene encoding Malin. Forty-nine different mutations in NHLRC1 have been shown to cause EPM2. Malin, also called NHL repeat-containing protein 1, is a single subunit E3 ubiquitin ligase, containing 6 NHL repeats and 1 RING-type zinc finger.

Malin’s RING domain is responsible for its ability to mediate ubiquitination. Malin interacts with and polyubiquitinates Laforin, a protein also implicated in EPM2. Malin localizes to the endoplasmic reticulum and, to a lesser extent, in the nucleus. Malin is expressed in brain, cerebellum, spinal cord, medulla, heart, liver, skeletal muscle and pancreas.

**Certificate of Analysis**

1μg/mL of SMC-444 was sufficient for detection of malin in 20 µg of transiently (malin) transfected COS cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Authorized: StressMarq Biosciences Inc.
Creation Date: 11/22/2013
Material Safety Data Sheet
Anti-Malin (Monoclonal Antibody) SMC-444
This product is for in vitro research use only and is not intended for use in humans or animals

The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

<table>
<thead>
<tr>
<th>Known Hazardous Components</th>
<th>CAS Number</th>
<th>Percent</th>
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<tbody>
<tr>
<td>None</td>
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Physical Data

This product consists of whole rabbit serum shipped on gel packs. The physical properties of this product have not been investigated thoroughly.

Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.