

#### DESCRIPTION

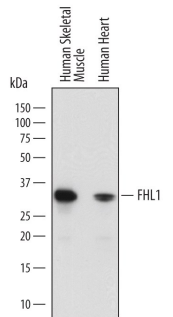
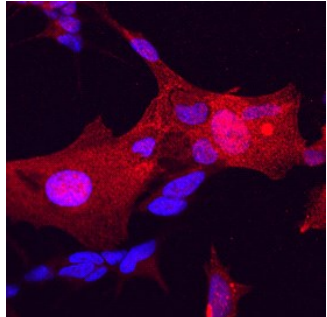
|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human   |
| <b>Specificity</b>        | Detects human FHL1 in direct ELISAs.  |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 767418   |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human FHL1<br>Thr93-Asn166<br>Accession # Q13642  |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|                            | <b>Recommended Concentration</b> | <b>Sample</b> |
|----------------------------|----------------------------------|---------------|
| <b>Western Blot</b>        | 0.2 µg/mL                        | See Below     |
| <b>Immunocytochemistry</b> | 8-25 µg/mL                       | See Below     |

#### DATA

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|--|--|
| <p><b>Western Blot</b></p>  <p><b>Detection of Human FHL1 by Western Blot.</b> Western blot shows lysates of human skeletal muscle tissue and human heart tissue. PVDF membrane was probed with 0.2 µg/mL of Mouse Anti-Human FHL1 Monoclonal Antibody (Catalog # MAB5938) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for FHL1 at approximately 34 kDa (as indicated). This experiment was conducted under reducing conditions and using <a href="#">Immunoblot Buffer Group 1</a>.</p> | <p><b>Immunocytochemistry</b></p>  <p><b>FHL1 in SH-SY5Y Human Cell Line.</b> FHL1 was detected in immersion fixed SH-SY5Y human neuroblastoma cell line using Mouse Anti-Human FHL1 Monoclonal Antibody (Catalog # MAB5938) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to nuclei and cytoplasm. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p> |
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#### PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Reconstitution</b>          | Sterile PBS to a final concentration of 0.5 mg/mL.   |
| <b>Shipping</b>                | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C   |
| <b>Stability &amp; Storage</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul> |

#### BACKGROUND

FHL1 (Four-and-a-half LIM domains protein 1; also SLIM1 and KyoT1) is an approximately 35 kDa member of the four-and-a-half class of the LIM domain-only protein family. It is highly expressed in myocardium and skeletal muscle, and is now known to bind NFATc1, promoting muscle hypertrophy. It is also noted to be a RIP140 binding partner that inhibits estrogen receptor signaling. Human FHL1 is 323 amino acids (aa) in length. It contains one C4-type Zn-finger region (aa 7-31), three distinct LIM domains (aa 40-77; 101-158; 162-212) and a bipartite NLS (aa 231-246). There is one 32 kDa splice variant that shows a 50 aa substitution for aa 231-323. This creates a fourth LIM domain. There are also alternative start sites 29 aa and 16 aa upstream of the standard site, a deletion of aa 168-296, and an 11 aa substitution for aa 81-91. Over aa 93-166, human FHL1 is 97% aa identical to mouse FHL1.