

**MONOCLONAL ANTIBODY TO  
HUMAN MBL-ASSOCIATED SERINE PROTEASE 3 (MASP-3)  
clone 38:12-3**



<b>Catalog nr</b>	HM2216 (lot number and expiry date are indicated on the label)								
<b>Description</b>	<p>The monoclonal antibody 38:12-3 recognizes MASP-3, a 94 kDa mannan-binding lectin (MBL)-associated serine protease.</p> <p>Three pathways of complement activation have been reported: the antibody-dependent classical pathway, the antibody-independent alternative pathway and the lectin pathway. Activation of each pathway involves formation of serine protease complexes, which results in activation of the central complement component, C3. In the lectin pathway, mannan-binding-lectin (MBL)-associated serine proteases (MASP) form complexes with oligopolymeric lectin molecules, which are involved in pattern recognition. Upon binding of the recognition molecules to carbohydrates on the surface of microorganisms, MASPs are converted to their active forms and initiate complement activation. Six members of the family of MASP-like serine proteases have been reported: MASP-1, MASP-2, MASP-3, Map19, C1r and C1s. These products show identical domain organization, even though the overall amino acid sequence identity is only approximately 40%. Each MASP-type forms homodimers and is individually associated with MBL and the ficolins in a Ca<sup>2+</sup>-dependent manner.</p> <p>The four MBL-associated proteins are generated from only two genes, the MASP-1/3 gene encodes MASP-1 and MASP-3, whereas the MASP-2/Map19 gene gives rise to MASP-2 and the non-enzymatic MASP-2 MAP19. MASP-1 associates preferentially with low oligomer MBL (termed MBL-I), whereas MASP-2 and MASP-3 associate mainly with larger MBL oligomers (MBL II and MBL III). MASP-3 is generated by alternative splicing of the MASP-1/3 gene. The MASP-3 transcription product is composed of an A chain, which is common to both MASP-1 and MASP-3, and a B chain, which is unique to MASP-3.</p> <p>The biological function of MASP-3 remains unclear. However, MASP-3 was found to downregulate the C4 and C2 cleaving activity of MASP-2. MASP-3 inhibits MASP-2 by a combination of competitive inhibition of MASP-2 association with MBL and inhibition of activation of the MBL-associated MASP-2. The monoclonal antibody 38:12-3 does not recognize MASP-1.</p>								
<b>Species</b>	Rat IgG <sub>2a</sub>								
<b>Formulation</b>	1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide.								
<b>Application</b>	The monoclonal antibody 38:12-3 can be used as detector in immuno assays. Furthermore the monoclonal antibody 38:12-3 is useful for Western blotting.								
<b>Use</b>	For Western blotting dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.								
<b>Storage and stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.								
<b>Precautions</b>	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and Federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result with the use or derivation of this product.								
<b>References</b>	<ol style="list-style-type: none"><li>1. Møller-Kristensen, M et al; Cooperation between MASP-1 and MASP-2 in the generation of C3 convertase through the MBL pathway. <i>Int Immunol</i> 2007, 19: 141</li><li>2. Stengaard-Pedersen, K et al; Inherited deficiency of mannan-binding lectin-associated serine protease 2. <i>N Engl J Med</i> 2003, 349: 554</li></ol>								
<b>Also available</b>	<table><tr><td>HM2092</td><td>Monoclonal antibody against Human MASP-1/3, clone 1E2</td></tr><tr><td>HM2093</td><td>Monoclonal antibody against Human MASP-1/3, clone 2B11</td></tr><tr><td>HM2190</td><td>Monoclonal antibody against Human MASP-2, clone 8B5</td></tr><tr><td>HM2191</td><td>Monoclonal antibody against Human MASP-2/Map19, clone 6G12</td></tr></table>	HM2092	Monoclonal antibody against Human MASP-1/3, clone 1E2	HM2093	Monoclonal antibody against Human MASP-1/3, clone 2B11	HM2190	Monoclonal antibody against Human MASP-2, clone 8B5	HM2191	Monoclonal antibody against Human MASP-2/Map19, clone 6G12
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