

## Anti-h IgM 7408 SPRN-5

### Product overview

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|--------------------------------|--|
| <b>Catalog number</b>          | 100084   |
| <b>Specificity</b>             | Antibody recognizes human immunoglobulin M   |
| <b>Description</b>             | Monoclonal mouse antibody, cultured <i>in vitro</i> under conditions free from animal-derived components.  |
| <b>Product buffer solution</b> | 37 mM citrate, 125 mM phosphate, pH 6.0, 0.9 % NaCl, 0.095 % NaN <sub>3</sub> as a preservative  |
| <b>Shelf life and storage</b>  | 36 months from manufacturing at 2–8 °C   |
| <b>Subclass</b>                | IgG <sub>1</sub>   |
| <b>Analyte description</b>     | Immunoglobulin M (IgM) is a basic antibody that is present on B cells. It is the first antibody to appear in response to initial exposure to antigen. IgM forms polymers where multiple immunoglobulins are covalently linked together with disulfide bonds, mostly as a pentamer. Demonstrating IgM antibodies in a patient's serum indicates recent infection, or in a neonate's serum indicates intrauterine infection (e.g. congenital rubella). |

### Parameters tested on each lot

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|------------------------------|--|
| <b>Product appearance</b>    | Liquid, may turn slightly opaque during storage          |
| <b>Product concentration</b> | 5.0 mg/ml (+/- 10 %)                                     |
| <b>Immunoreactivity</b>      | 80–120 % compared to the reference sample in an FIA test |
| <b>IEF Profile</b>           | 6.1–7.0  |
| <b>Purity</b>                | ≥ 95 %   |

### Kinetic parameters

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|-----------------------------------|---|
| <b>Association rate constant</b>  | Not Determined (N/D)                              |
| <b>Dissociation rate constant</b> | N/D   |
| <b>Affinity constant</b>          | $K_A = 6 \times 10^{10} \text{ 1/M}$              |
| <b>Determination method</b>       | Radioimmunoassay (RIA)                            |
| <b>Determination antigen</b>      | IgM, Scripps Laboratories (Cat I1124, Lot 794283) |

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| <b>Cross-reactivities</b>   | Human IgG < 0.01 % (Scripps Laboratories, Cat I1424, Lot 484183)<br>Human IgA < 0.02 % (Scripps Laboratories, Cat I2224, Lot 127283)<br>Goat IgG < 0.01 % (Chemicon, Cat PP40, Lot 1250CM)<br>Rabbit IgG < 0.01 % (Chemicon, Cat PP64, Lot 3080CM)<br>Equine IgG < 0.01 % (Chemicon, Cat PP30, Lot 310JCI1)<br>Porcine IgG < 0.02 % (Chemicon, Cat AG114, Lot 154JCI1)<br>Bovine IgG < 0.01 % (Chemicon, Cat PP03, Lot 012291CHM3)<br>Ovine IgG < 0.01 % (Chemicon, Cat PP44, Lot 0630CM)   |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
|-----------------------------|---|-------------------|--------|-----------------|-----|-----------------|----|----------------|----|-----------------|----|-----------------|----|----------------|----|
| <b>Epitope</b>              | Recognizes an epitope in the Fc region of IgM.  |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| <b>Pair recommendations</b> | N/D<br><br>Please note that pair recommendations are based on results obtained by our laboratory. Equally good results may be obtained using other pairs and therefore these recommendations are only indicative.   |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| <b>Platforms tested</b>     | FIA   |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| <b>Antigens tested</b>      | Native IgM antigen Lee Biosolutions 340-31 and 340-35, and native IgM fc5 $\mu$ antigen Lee Biosolutions 340-33.  |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| <b>Product stability</b>    | <table> <thead> <tr> <th>TEMPERATURE, TIME</th> <th>RESULT</th> </tr> </thead> <tbody> <tr> <td>-70 °C, 21 days</td> <td>N/D</td> </tr> <tr> <td>-20 °C, 21 days</td> <td>OK</td> </tr> <tr> <td>+4 °C, 21 days</td> <td>OK</td> </tr> <tr> <td>+30 °C, 21 days</td> <td>OK</td> </tr> <tr> <td>+35 °C, 21 days</td> <td>OK</td> </tr> <tr> <td>+45 °C, 7 days</td> <td>OK</td> </tr> </tbody> </table> <p>Stability testing is performed in the product buffer to see whether different temperatures affect the antigen binding, charge or composition of the antibody. Please note that the shelf life given on the first page is based on real time stability testing at 2–8 °C in the product buffer.</p> | TEMPERATURE, TIME | RESULT | -70 °C, 21 days | N/D | -20 °C, 21 days | OK | +4 °C, 21 days | OK | +30 °C, 21 days | OK | +35 °C, 21 days | OK | +45 °C, 7 days | OK |
| TEMPERATURE, TIME           | RESULT  |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| -70 °C, 21 days             | N/D   |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| -20 °C, 21 days             | OK  |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| +4 °C, 21 days              | OK  |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| +30 °C, 21 days             | OK  |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| +35 °C, 21 days             | OK  |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| +45 °C, 7 days              | OK  |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |
| <b>Miscellaneous</b>        | -   |                   |        |                 |     |                 |    |                |    |                 |    |                 |    |                |    |



## References

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