

## PRODUCT SPECIFICATIONS

|                                |   |
|--------------------------------|---|
| <b>Name</b>                    | Anti-h AFP 5108 SP-5  |
| <b>Specificity</b>             | Antibody recognizes human Alpha <sub>1</sub> -fetoprotein   |
| <b>Description</b>             | Monoclonal mouse antibody, cultured <i>in vitro</i> under conditions free from animal-derived components  |
| <b>Product code</b>            | 100015  |
| <b>Product buffer solution</b> | 0.9 % NaCl, 0.095 % NaN <sub>3</sub> as a preservative  |
| <b>Shelf life and storage</b>  | 24 months from manufacturing at 2-8 °C  |
| <b>Analyte description</b>     | AFP is a major plasma protein produced by fetus. AFP is measured in pregnancy as a screening test for developmental abnormalities. It is also used as a biomarker to detect certain tumors. |

## PARAMETERS TESTED ON EACH LOT

|                              |  |
|------------------------------|--|
| <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>           | 6.5 - 7.1  |
| <b>Purity</b>                | ≥ 95 %   |

## PARAMETERS DETERMINED DURING PRODUCT DEVELOPMENT

|                                   |                               |
|-----------------------------------|-------------------------------|
| <b>Subclass</b>                   | IgG <sub>1</sub>              |
| <b>Association rate constant</b>  | Not Determined (N/D)          |
| <b>Dissociation rate constant</b> | N/D                           |
| <b>Affinity constant</b>          | 3 x 10 <sup>10</sup> l/mol    |
| <b>Determination method</b>       | Radioimmunoassay (RIA)        |
| <b>Determination antigen</b>      | AFP, DAKO (Cat X557, Lot 13C) |

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**Cross-reactivities** Antibody 5108 does not cross-react with human albumin. Others not tested.

**Epitope** N/D

**Pair recommendations**

|                         |                           |
|-------------------------|---------------------------|
| <b>CAPTURE ANTIBODY</b> | <b>DETECTION ANTIBODY</b> |
| 5107                    | 5108                      |

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.

**Product stability**

| <b>TEMPERATURE, TIME</b> | <b>RESULT</b> |
|--------------------------|---------------|
| -70 °C, 21 days          | N/D           |
| -20 °C, 21 days          | N/D           |
| +4 °C, 21 days           | N/D           |
| +35 °C, 7 days           | N/D           |
| +35 °C, 21 days          | N/D           |
| +45 °C, 3 days           | N/D           |
| +45 °C, 7 days           | N/D           |

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.

**Miscellaneous** Authors in Koskinen et al. (2005) developed a dry- and wet-chemistry based assay methods for AFP with detection limits of 0.41 ng/mL and 0.67 ng/mL, respectively.

**References** Koskinen, J.O., Meltola, N.J., Soini, E. and Soini, A.E. (2005) A lab-on-a-chip compatible bioaffinity assay method for human  $\alpha$ -fetoprotein. Lab Chip, 5:1408-1411

Stenman, U.-H., Sutinen, M.-L., Selander, R.-K., Tontti, K. and Schröder, J. (1981) Characterization of a monoclonal antibody to human alpha-fetoprotein and its use in affinity chromatography. J. Immunol. Meth., 46:337-345

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