

## Product specifications

---

|                         |  |
|-------------------------|--|
| Name                    | Anti-h Alpha Subunit 5501 SP-1   |
| Specificity             | Antibody recognizes the alpha subunit of human chorionic gonadotropin (hCG), luteinizing hormone (LH), follicle-stimulating hormone (FSH), and thyroid-stimulating hormone (TSH) |
| Description             | Monoclonal mouse antibody, cultured <i>in vitro</i> under conditions free from animal-derived components.  |
| Product code            | 100035   |
| Product buffer solution | 0.9 % NaCl, 0.095 % NaN <sub>3</sub> as a preservative   |
| Shelf life and storage  | 36 months from manufacturing at 2–8 °C   |
| Subclass                | IgG <sub>1</sub>   |
| Analyte description     | The alpha subunits of gonadotropins LH, FSH, TSH, and hCG are identical. The human alpha subunit consists of 92 amino acids, and has an average molecular weight of 14 kDa.      |

## Parameters tested on each lot

---

|                       |  |
|-----------------------|--|
| Product appearance    | Liquid, may turn slightly opaque during storage          |
| Product concentration | 1.0 mg/ml (+/- 10 %)                                     |
| Immunoreactivity      | 80–120 % compared to the reference sample in an FIA test |
| IEF Profile           | 6.5–7.2  |
| Purity                | ≥ 95 %   |

## Kinetic parameters

---

|                            |  |
|----------------------------|--|
| Association rate constant  | $1.9 \times 10^6$ 1/Ms   |
| Dissociation rate constant | $1.1 \times 10^{-3}$ 1/s   |
| Affinity constant          | $K_A = 1.7 \times 10^9$ 1/M; $K_D = 5.7 \times 10^{-10}$ M (= 0.57 nM) |
| Determination method       | SPR analysis (ProteOn XPR36)   |
| Determination antigen      | hCG, Scripps (Cat C0714, Lot 2430801)                                  |

|                      |   |  |
|----------------------|---|--|
| Cross-reactivities   | Does not recognize hCG, LH, FSH, or TSH $\beta$ subunits                      |  |
| Epitope              | Alpha 2 epitope as described in Nilsson et al. (2001)                         |  |
| Pair recommendations | CAPTURE ANTIBODY<br>hCG, LH, FSH, or TSH $\beta$ subunit specific<br>antibody | DETECTION ANTIBODY<br>5501, 5503, 6601 |

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.

Platforms tested FIA

Antigens tested N/D

| Product stability | TEMPERATURE, TIME | RESULT |
|-------------------|-------------------|--------|
|                   | -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 -

References Nilsson, C., Seppälä, M. and Pettersson, K. (2001) Immunological characterization of human luteinizing hormone with special regard to a common genetic variant. J.Endocrinol. 168:10-116