

PRODUCT SPECIFICATIONS

Date: 2015-09-28

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|-------------------------------|---|
| PRODUCT NAME | : Anti-h Transferrin 3104 SPTN-5 |
| PRODUCT SPECIFICITY | : Human Transferrin |
| PRODUCT CODE | : 100525 |
| PRODUCT BUFFER | : 50 mM Na-citrate, pH 6.0, 0.9 % NaCl, 0.095 % NaN ₃ as a preservative |
| SHELF LIFE AND STORAGE | : Shelf life unspecified, storage at 2-8 °C |
| ANALYTE DESCRIPTION | : Transferrins are glycoproteins which regulate the amount of free iron in circulation. Each transferrin molecule binds two Fe ⁺³ with high affinity. When no iron is bound the molecule is called Apotransferrin. Transferrin concentration elevates in anemia, but also during pregnancy and when using birth control pills. Chronic infections, malignant growth, alcohol induced liver damage, and other conditions with protein loss may lower transferrin concentration. |

PARAMETERS TESTED FROM EACH LOT

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|------------------------------|--|
| PRODUCT APPEARANCE | : Clear liquid, may turn opaque during storage. |
| PRODUCT CONCENTRATION | : 5.0 mg/ml (+/- 10 %) |
| PRODUCT ACTIVITY | : 80 – 120 % compared to reference in an IFMA-test |
| IEF-RANGE | : 6.7 – 7.4 |
| PURITY | : ≥ 95 % |

PARAMETERS DETERMINED ONLY DURING PRODUCT R&D PHASE

| | |
|------------------------------|---|
| CLASS AND SUBCLASS | : IgG ₁ |
| ASSOCIATION CONSTANT | : 0.6 x 10 ⁶ 1/Ms |
| DISSOCIATION CONSTANT | : 1.7 x 10 ⁻⁴ 1/s |
| AFFINITY CONSTANT | : KA = 3.8 x 10 ⁹ 1/M; KD = 2.6 x 10 ⁻¹⁰ M (=0.26 nM) |
| DETERMINATION METHOD | : SPR analysis (BioRad ProteOn XPR36) |
| ANTIGEN | : Transferrin native human (AbD Serotec, cat.no. PHP-238, lot#171210) |
| CROSS-REACTIVITIES | : N/D |

EPITOPE : N/D

EPITOPE GROUP : -

Two antibodies binding to the same, or closely located epitopes, belong to the same group and hence cannot be used as a pair in a sandwich assay. Epitope group numbering does not give any detailed information where the epitope is located.

| PAIR RECOMMENDATIONS | SOLID | LABEL |
|-----------------------------|--------------|--------------|
| | 3105, 3106 | 3104 |
| | 3104 | 3105, 3106 |

Please note that pair recommendations are based on results obtained in our laboratory. Equally good results may be obtained using other pairs and therefore these recommendations should be taken only as a directive.

| PRODUCT STABILITY | TEMPERATURE, DAYS | RESULT |
|---|--------------------------|---------------|
| Please note that the shelf life given on page one is based on real time stability testing at +2-8 °C in the product buffer. | -70 °C, 21 days | OK |
| | -20 °C, 21 days | OK |
| | +4 °C, 21 days | OK |
| | +35 °C, 21 days | OK |
| | +45 °C, 7 days | OK |

Stability testing is performed in the product buffer to see whether different temperatures affect the antigen binding, charge or composition of the antibody. The maximum duration of the test is 21 days, except for the +45 °C only 7 days.

MISCELLANEOUS : -

REFERENCES : -

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