

## PRODUCT SPECIFICATIONS

<b>Name</b>	Anti-h Transferrin 3105 SPTN-5
<b>Specificity</b>	Antibody recognizes human transferrin
<b>Description</b>	Monoclonal mouse antibody, cultured <i>in vitro</i> under conditions free from animal-derived components
<b>Product code</b>	100440
<b>Product buffer solution</b>	50 mM Na-citrate, pH 6.0, 0.9 % NaCl, 0.095 % NaN <sub>3</sub> as a preservative
<b>Shelf life and storage</b>	12 months from manufacturing at 2-8 °C
<b>Analyte description</b>	Transferrins are glycoproteins which regulate the amount of free iron in circulation. Each transferrin molecule binds two Fe <sup>+3</sup> 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 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 - 7.6
<b>Purity</b>	≥ 95 %

## PARAMETERS DETERMINED DURING PRODUCT DEVELOPMENT

<b>Subclass</b>	IgG <sub>1</sub>
<b>Association rate constant</b>	6.7 × 10 <sup>6</sup> 1/Ms
<b>Dissociation rate constant</b>	1.3 × 10 <sup>-5</sup> 1/s
<b>Affinity constant</b>	K <sub>A</sub> = 5.3 × 10 <sup>11</sup> 1/M; K <sub>D</sub> = 1.9 × 10 <sup>-12</sup> M (=0.002 nM)
<b>Determination method</b>	SPR analysis (ProteOn XPR36)
<b>Determination antigen</b>	Transferrin native human, AbD Serotec (Cat PHP-238, Lot 171210)

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**Cross-reactivities** No cross reactivity with lactoferrin or hemoglobin.

**Epitope** N/D

<b>Pair recommendations</b>	<b>CAPTURE ANTIBODY</b>	<b>DETECTION ANTIBODY</b>
	3105	3104, 3106
	3104, 3106	3105

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>Product stability</b>	<b>TEMPERATURE, TIME</b>	<b>RESULT</b>
	-70 °C, 21 days	OK
	-20 °C, 21 days	OK
	+4 °C, 21 days	OK
	+35 °C, 21 days	OK
	+45 °C, 3 days	OK
	+45 °C, 7 days	Minor charge alterations.

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** Recognizes Apotransferrin (Sigma, T2252).

**References** -

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