

## PRODUCT SPECIFICATIONS

Date: 2011-08-12

<b>PRODUCT NAME</b>	:	Anti-h Adiponectin 1902 SPTN-5
<b>PRODUCT SPECIFICITY</b>	:	Antibody recognizes human Adiponectin
<b>PRODUCT CODE</b>	:	100256
<b>PRODUCT BUFFER</b>	:	50 mM Na-citrate, pH 6.0, 0.9 % NaCl, 0.1 % NaN <sub>3</sub> as a preservative
<b>SHELF LIFE AND STORAGE</b>	:	12 months at 2-8 °C
<b>ANALYTE DESCRIPTION</b>	:	Adiponectin is a protein hormone that modulates a number of metabolic processes, including glucose regulation and fatty acid catabolism. Adiponectin is exclusively secreted from adipose tissue into the bloodstream and is very abundant in plasma relative to many hormones at around 5-10 µg/mL. Levels of the hormone are inversely correlated with body fat percentage in adults, while the association in infants and young children is more unclear. The hormone plays a role in the suppression of the metabolic derangements that may result in type 2 diabetes, obesity, atherosclerosis, non-alcoholic fatty liver disease (NAFLD) and an independent risk factor for metabolic syndrome. Adiponectin automatically self-associates into larger structures. Initially three adiponectin molecules bind together to form a homotrimer. The trimers continue to self-associate and form hexamers or dodecamers.

### PARAMETERS TESTED FROM EACH LOT

<b>PRODUCT APPEARANCE</b>	:	Clear liquid, may turn opaque during storage
<b>PRODUCT CONCENTRATION</b>	:	5.0 mg/ml (+/- 10 %)
<b>PRODUCT ACTIVITY</b>	:	80 – 120 % compared to reference in an IFMA-test
<b>IEF-RANGE</b>	:	Does not form focusing bands
<b>PURITY</b>	:	≥ 95 %

### PARAMETERS DETERMINED ONLY DURING PRODUCT R&D PHASE

<b>CLASS AND SUBCLASS</b>	:	IgG <sub>2b</sub>
<b>ASSOCIATION CONSTANT</b>	:	$3 \times 10^5$ 1/Ms
<b>DISSOCIATION CONSTANT</b>	:	$2 \times 10^{-4}$ 1/s
<b>AFFINITY CONSTANT</b>	:	$K_A = 2 \times 10^9$ 1/M; $K_D = 6 \times 10^{-10}$ M (= 0.6 nM)
<b>DETERMINATION METHOD</b>	:	SPR analysis (ProteOn XPR36)
<b>ANTIGEN</b>	:	Recombinant human Adiponectin (BioVendor, cat.no. RD172029100)
<b>CROSS-REACTIVITIES</b>	:	Antibody recognizes both monomeric and trimeric Adiponectin, oligomeric forms not tested.

**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
1902	1901
1901	1902

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
-70 °C, 21 days	OK
-20 °C, 21 days	OK
+4 °C, 21 days	OK
+25 °C, 21 days	OK
+35 °C, 21 days	OK
+45 °C, 3 days	OK
+45 °C, 7 days	Failed due to reduced antigen binding

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.

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.

pH, 14 DAYS, +4 °C	RESULT
5.0	OK
6.0	OK
7.0	OK
8.0	OK

Stability testing is performed to see whether pH affects the antigen binding, charge or composition of the antibody during 14 days at +4 °C.

**MISCELLANEOUS** : -

**REFERENCES** : -

### Legal disclaimer

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