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Anti-h PSA 8301 SPRN-5

Product overview				
Catalog number	100102			
Specificity	Antibody recognizes human prostate-specific antigen			
Description	Monoclonal mouse antibody, cultured <i>in vitro</i> under conditions free from animal-derived components.			
Product buffer solution	37 mM citrate, 125 mM phosphate, pH 6.0, 0.9 % NaCI, 0.095 % NaN $_{\rm 3}$ as a preservative			
Shelf life and storage	36 months from manufacturing at 2–8 °C			
Subclass	lgG1			
Analyte description	Prostate-specific antigen (PSA) is a protein produced by the cells of the prostate gland. PSA is present in small quantities in the serum of healthy men, and is often elevated in the presence of prostate cancer and in other prostate disorders. A blood test to measure PSA is considered the most effective test currently available for the early detection of prostate cancer, but this effectiveness has also been questioned.			
Parameters tested on eac	h lot			
Product appearance	Liquid, may turn slightly opaque during storage			
Product concentration	5.0 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	Not Determined (N/D)			
Dissociation rate constant	N/D			
Affinity constant	1 x 10 ¹¹ 1/M			
Determination method	Radioimmunoassay (RIA)			
Determination antigen	PSA, Aalto (Cat AJ 3036, Lot 1133)			



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Cross-reactivities	PSA Kalli PAP	PSA/α1-ACT complex59 % (Scripps Laboratories, Cat P0624, Lot 777464)Kallikrein< 0.04 % (Biodesign, Cat P0514, Lot 191K)PAP< 0.04 % (Scripps Laboratories, Cat P0514, Lot 534164 A)							
Epitope	Resi	Residues 158–163, group 3 as described in Rye et al. (1999)							
Pair recommendations		DETECTION							
		-	8301	8311	8312	8313 (free PSA)			
	CAPTURE	8301	-	+	+	+			
		8311	+	-	-	+			
		8312	+	-	-	+			
		8313 (free PSA)	+	+	+	-			
	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	Native PSA antigen, Lee Biosolutions 497-11 and 497-17, and native PSA-ACT complex, Lee Biosolutions 498-11.								
Product stability	TEN -70 ° -20 ° +4 °(+30 +35 +45 Stab	IPERATURE, TIMI °C, 21 days °C, 21 days C, 21 days °C, 21 days °C, 21 days °C, 21 days °C, 7 days	E prmed in the	RESI N/D OK OK OK OK Product buff	JLT er to see wi	hether 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	Clone 8301 reacts with non-reduced and reduced intact PSA but not with reduced PSA fragments (Rye et al., 1999). In the same study affinities for free-PSA and PSA-ACT-complex were, $9.0 \times 10-9 \text{ mol/l}$ and $5.2 \times 10-9$, respectively. They also noted that antibodies binding to epitope group 3a form a good pair with antibodies from groups 1, 5a, 5c and 6. Clone 8301 does not cross-react with human kallikrein-2 (Black, 1999b).								
References	Black, M.H., Grass, C.L., Leinonen, J., Stenman, U-H. and Diamandis, E.P., (1999a) Characterization of monoclonal antibodies for prostate-specific antigen and development of highly sensitive free prostate-specific antigen assays. Clin. Chem., 45(3):347-354								
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Magklara, A., Scorilas, A., López-Otín, C., Vizoso, F., Ruibal, A. and Diamandis, E.P., (1999) Human glandular kallikrein in breast milk, amniotic fluid, and breast cyst fluid. Clin. Chem., 45(10):1774-1780

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