

Guide for Selecting an Appropriate CD4 T-cell Counting System

Categories	Apogee A40	FACSCount BDIS	Guava PCA	Partec CyFlow C.	PointCare NOW	Sysmex Poch-100i
Environmental energy issues (E)						
E-1 Use of flow energy laser or LED				X	X	
E-2 Low water consumption			X		X	X
E-3 No cold-chain & or need for refrigeration					X	
E-4 Impervious to day-light exposure					X	X
E-5 Nominal waste collection			X		X	
E-6 Protection against power fluctuations						
E-7 Operates without AC						
E-8 Eliminated stand-alone computer					X	X
E-9 Battery/solar power free or an option				X	X	
Cost issues (C)						
C-1 Minimal antibody numbers used in small volumes	X		X	X		
C-2 Simultaneous CD4 absolute and CD4%		X	X	X	X	
C-3 Method without lysing reagent		X		X		
C-4 Method without counting beads	X		X	X	X	X
C-5 Patient/control data space onboard		X		X	X	
C-6 Minimal daily quality control cost			X		X	X
C-7 Cost/availability of preventive/service contract		X	X	X	X	X
C-8 Internet/satellite/GMS compatibility					X	
C-9 Compatibility with EQAP (NEQAS,QASI)	X	X	X	X		
C-10 Maximum daily sample throughput						
Labor-related issues (L)						
L-1 Elimination of manual gating		X			X	
L-2 Manual pipetting is avoided					X	
L-3 Onboard automated data management					X	
L-4 Availability of continuous-training						
L-5 Portability: is transport case available	X		X		X	
L-6 Small bench-top foot-print		X	X		X	
L-7 Barcode reader is available or an option					X	
L-8 High skill-level for operator is eliminated					X	
L-9: Additional capacity fo hematology					X	X

Reference:

Cytometry Part B (Clinical Cytometry) 74B (Suppl. 1):S36 (2008)
"Affordable CD4 T-Cell Enumeration for Resource-Limited Regions: A Status Report for 2008"
 F. Mandy, G. Janossy, M. Bergeron, R. Pilon, and S. Faucher