Leucocyte Immunophenotyping

Immune Monitoring Programme





Distribution -



Participant ID - 4XXXX



Date Issued -



Closing Date -



Machine Used - Facs Canto II



Trial Comments

This trial was issued to 845 laboratories worldwide for the enumeration of lymphocyte subsets.



Sample Comments

This sample was manufactured by UK NEQAS from stabilised CD4 depleted whole blood



Absolute Values Results and Performance

Cell Population	Your Results (cells/µL)	Robust Mean (cells/μL)	Robust SD (cells/µL)
CD3+ Lymphocytes	1261.00	1438.02	116.44
CD3+/CD4+ Lymphocytes	222.00	244.76	25.92
CD3+/CD8+ Lymphocytes	1039.00	1088.70	96.86
CD19+ Lymphocytes	251.00	273.94	34.16
CD16+/CD56+ Lymphocytes	307.00	295.12	45.00

Cell Population	z Score*	Performance Status for this Sample	Performance State	us Classification Over	12 Sample Period
		ioi triis Sample	Satisfactory	Action	Critical
CD3+ Lymphocytes	-1.52	Satisfactory	12	0 =	0
CD3+/CD4+ Lymphocytes	-0.88	Satisfactory	12	0	0
CD3+/CD8+ Lymphocytes	-0.51	Satisfactory	12	0	0
CD19+ Lymphocytes	-0.67	Satisfactory	12	0	0
CD16+/CD56+ Lymphocytes	0.26	Satisfactory	12	0	0

Percentage Values Results and Performance

Cell Population	Your Results %	Robust Mean %	Robust SD %
CD3+ Lymphocytes	69.00	70.88	1.72
CD3+/CD4+ Lymphocytes	12.00	12.00	1.06
CD3+/CD8+ Lymphocytes	55.00	53.86	1.82
CD19+ Lymphocytes	13.00	13.32	0.95
CD16+/CD56+ Lymphocytes	16.00	14.52	1.11

Cell Population	z Score*	Performance Status for this Sample	Performance State	us Classification Over	12 Sample Period
		Tor triis Gampic	Satisfactory	Action	Critical
CD3+ Lymphocytes	-1.09	Satisfactory	12	0 =	0 =
CD3+/CD4+ Lymphocytes	0.00	Satisfactory	12	0	0 ~
CD3+/CD8+ Lymphocytes	0.63	Satisfactory	12	0	0
CD19+ Lymphocytes	-0.34	Satisfactory	12	0	0
CD16+/CD56+ Lymphocytes	1.33	Satisfactory	12	0	0

*z Score Limits Definitions

Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.



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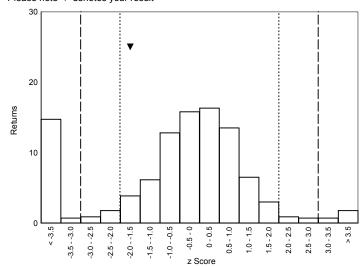
Leucocyte Immunophenotyping

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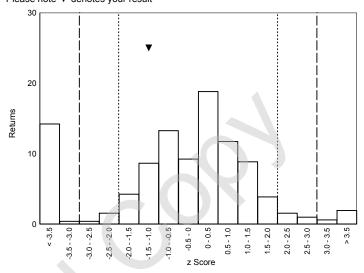


Histograms of Participant z Scores

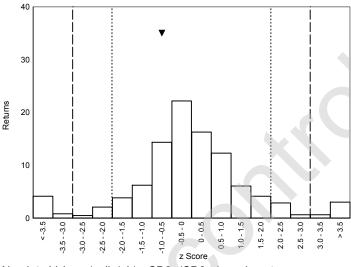
Absolute Values (cells/µL) - CD3+ Lymphocytes Please note ▼ denotes your result



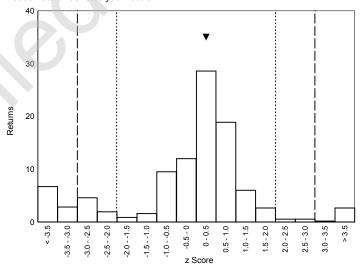
Percentage Values (%) - CD3+ Lymphocytes Please note ▼ denotes your result



Absolute Values (cells/µL) - CD3+/CD4+ Lymphocytes Please note ▼ denotes your result



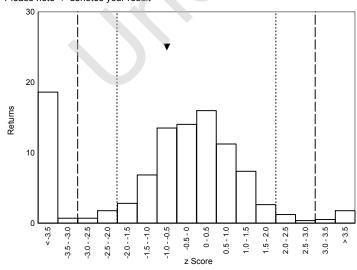
Percentage Values (%) - CD3+/CD4+ Lymphocytes Please note ▼ denotes your result



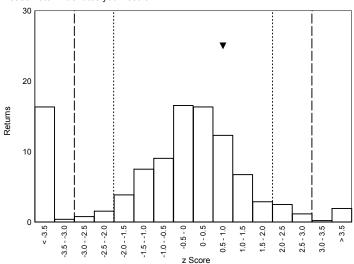
Absolute Values (cells/µL) - CD3+/CD8+ Lymphocytes Please note ▼ denotes your result

Distribution.

Issue Date:



Percentage Values (%) - CD3+/CD8+ Lymphocytes Please note ▼ denotes your result



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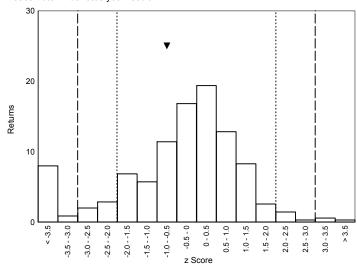




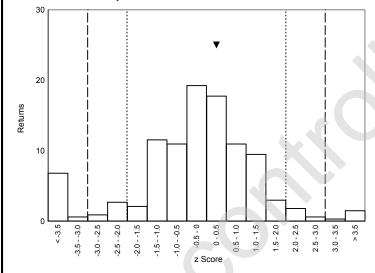
Histograms of Participant z Scores

Leucocyte Immunophenotyping

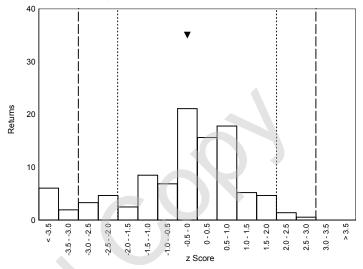
Absolute Values (cells/µL) - CD19+ Lymphocytes Please note ▼ denotes your result



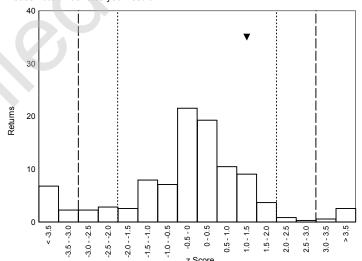
Absolute Values (cells/µL) - CD16+/CD56+ Lymphocytes Please note ▼ denotes your result



Percentage Values (%) - CD19+ Lymphocytes Please note ▼ denotes your result



Percentage Values (%) - CD16+/CD56+ Lymphocytes Please note ▼ denotes your result



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Platform Specific Statistics

(Please note only groups of >20 returns are displayed)

CD3+ Lymphocytes	Absolute Count Values (cells/µL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FACSCOUNT	43	1434.8	80.5	-	-	-
FLOW COUNT	104	1387.4	100.1	105	71.6	1.3
HAEM. LYMPH	-	-	-	22	70.9	2.7
HAEM. WBC	32	1421.7	226.7	43	71.7	2.0
TRUCOUNT	244	1461.8	110.5	231	70.5	1.7

CD3+/CD4+ Lymphocytes	Absolute	Count Values	(cells/µL)	Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FACSCOUNT	106	234.0	20.3	61	9.0	0.7
FLOW COUNT	122	242.6	22.6	119	12.6	0.7
HAEM. LYMPH	-	-	-	21	12.6	0.8
HAEM. WBC	32	243.8	40.7	43	12.2	0.9
TRUCOUNT	248	251.3	26.4	236	12.1	0.8

CD3+/CD8+ Lymphocytes	Absolute Count Values (cells/μL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FACSCOUNT	37	1063.0	71.9	-	-	-
FLOW COUNT	106	1042.2	87.3	107	53.9	1.6
HAEM. WBC	32	1085.8	135.8	42	54.1	2.5
TRUCOUNT	235	1115.9	85.7	225	53.9	1.8

CD19+ Lymphocytes	Absolute Count Values (cells/µL) Percentage Values				es	
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FLOW COUNT	94	250.8	33.6	95	12.8	0.9
HAEM. WBC	26	226.4	52.1	28	11.7	1.8
TRUCOUNT	175	285.7	28.0	174	13.6	0.9

CD16+/CD56+ Lymphocytes	Absolute Count Values (cells/µL) Percentage Values				es	
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FLOW COUNT	88	265.0	39.7	88	13.6	1.6
HAEM. WBC	24	303.0	81.5	27	15.1	1.6
TRUCOUNT	173	310.1	39.6	172	14.8	1.0

Version.



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Antibody Manufacturer Specific Statistics (Please note only groups of >20 returns are displayed)

CD3+ Lymphocytes	Absolute Count Values (cells/µL)			tes Absolute Count Values (cells/µL) Percentage \			centage Valu	es
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD		
BD Biosciences	345	1456.2	109.0	300	70.6	1.8		
Beckman Coulter	140	1392.2	120.8	149	71.7	1.4		

CD3+/CD4+ Lymphocytes	Absolute Count Values (cells/µL)			Absolute Count Values (cells/µL) Percen			centage Valu	ies
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD		
BD Biosciences	414	246.1	25.8	364	11.9	1.0		
Beckman Coulter	147	242.9	23.8	155	12.6	0.7		

CD3+/CD8+ Lymphocytes	Absolute Count Values (cells/µL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
BD Biosciences	322	1104.0	90.5	293	53.9	2.0
Beckman Coulter	137	1047.2	92.9	148	53.9	1.7

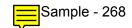
CD19+ Lymphocytes	Absolute Count Values (cells/µL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
BD Biosciences	208	281.3	31.1	222	13.5	0.8
Beckman Coulter	116	249.4	36.5	122	12.7	1.1

CD16+/CD56+ Lymphocytes	Absolute Count Values (cells/µL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
BD Biosciences	205	305.7	39.6	223	14.7	1.1
Beckman Coulter	110	268.1	44.0	115	13.8	1.6

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Antibody Fluorochrome Specific Statistics =

(Please note only groups of >20 returns are displayed)

CD3+ Lymphocytes	Absolute Count Values (cells/µL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FITC	287	1454.1	115.0	294	70.6	1.9
PC5	50	1367.8	94.4	55	71.9	1.2
PE	25	1433.2	93.5	-	-	-
PE-CY5	96	1412.1	117.3	70	71.9	1.5

CD3+/CD4+ Lymphocytes	Absolute	Count Values	(cells/µL)	Percentage Values			
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD	
APC	157	251.2	26.6	152	12.1	0.7	
FITC	27	242.2	32.3	23	12.1	1.0	
PE	235	240.4	26.0	199	11.6	1.6	
PE-CY7	93	250.1	24.4	100	12.1	0.7	
RD1	46	239.0	17.7	50	12.7	0.5	

CD3+/CD8+ Lymphocytes	Absolute Count Values (cells/µL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
APC-Cy7	86	1099.7	89.2	92	53.7	1.7
ECD	105	1032.9	85.1	111	54.0	1.6
PE	232	1107.1	93.3	201	54.0	2.3

CD19+ Lymphocytes	Absolute Count Values (cells/µL) Percentage Value				es	
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
APC	187	281.0	31.1	196	13.5	0.9
ECD	89	248.0	35.6	92	12.7	1.0
PE	26	282.5	31.2	30	13.4	0.9

CD16+/CD56+ Lymphocytes	Absolute Count Values (cells/µL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
PE	271	299.8	45.3	290	14.6	1.1
RD1	31	261.4	37.6	32	13.6	1.5

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Flow Cytometer Specific Statistics

(Please note only groups of >20 returns are displayed)

CD3+ Lymphocytes	Absolute	Count Values	(cells/µL)	Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Facs Canto II	147	1454.9	113.6	158	70.2	1.5
Facscalibur	123	1466.7	114.4	120	71.1	2.1
Facscount	60	1435.8	85.2	-	-	-
FC-500	71	1371.8	111.3	79	71.8	1.6
Navios	58	1409.3	128.7	57	72.0	1.2

CD3+/CD4+ Lymphocytes	Absolute	Count Values	(cells/µL)	Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Facs Canto II	147	251.4	24.7	158	12.1	0.7
Facscalibur	127	249.3	30.7	125	12.1	0.8
Facscount	131	235.4	21.4	67	9.0	0.6
FC-500	76	240.3	22.9	84	12.5	0.7
Navios	57	248.3	26.8	57	12.7	0.7

CD3+/CD8+ Lymphocytes	Absolute	Absolute Count Values (cells/μL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD	
Facs Canto II	147	1113.3	89.3	158	53.6	2.0	
Facscalibur	113	1110.2	88.0	113	54.1	1.7	
Facscount	49	1059.0	76.3	-	-	-	
FC-500	72	1028.5	95.2	80	53.6	1.6	
Navios	56	1068.8	99.1	57	54.6	1.3	

CD19+ Lymphocytes	Absolute	Count Values	(cells/µL)	Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Facs Canto II	136	285.0	27.4	146	13.6	0.8
Facscalibur	54	275.6	37.9	59	13.0	1.6
FC-500	63	244.5	38.7	66	12.5	1.2
Navios	47	251.8	32.0	48	12.8	1.0

CD16+/CD56+ Lymphocytes	Absolute Count Values (cells/µL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Facs Canto II	134	309.5	39.9	145	14.8	1.1
Facscalibur	53	302.7	35.0	58	14.5	0.8
FC-500	57	264.0	40.1	60	13.7	2.1
Navios	46	262.4	38.5	47	13.7	1.2

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Gating Strategy Specific Statistics

(Please note only groups of >20 returns are displayed)



CD3+ Lymphocytes	Absolute Count Values (cells/µL) Percentage Values			ies		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
CD3	23	1423.0	89.3	_	_	-
CD45/SSC	381	1436.2	124.1	403	71.0	1.6
Facscount Gating	30	1431.1	85.2	-	-	-
FSC/SSC	45	1466.7	140.8	37	71.9	3.5

CD3+/CD4+ Lymphocytes	Absolute	Count Values	(cells/µL) Percentage Values			ies
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
CD3	25	244.9	22.0	-	-	-
CD45/SSC	385	248.5	25.4	404	12.3	0.7
Facscount Gating	92	232.2	21.4	62	9.0	0.7
FSC/SSC	50	248.5	29.0	41	12.0	1.0

CD3+/CD8+ Lymphocytes	Absolute Count Values (cells/µL) Percentage Values			es		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
CD3	21	1068.6	67.5	-	-	-
CD45/SSC	377	1090.2	102.4	399	53.9	1.8
Facscount Gating	24	1050.2	62.2	-	-	-
FSC/SSC	30	1108.5	109.6	27	54.0	1.7

CD19+ Lymphocytes	Absolute	Absolute Count Values (cells/µL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD	
CD45/SSC	308	268.4	37.6	327	13.2	1.1	

CD16+/CD56+ Lymphocytes	Absolute Count Values (cells/µL)			Percentage Values		
Method	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
CD45/SSC	295	292.4	47.6	315	14.5	1.2