

**Final report**

Order-ID : 839207905

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Date of Reception/Report : 05/23/2017

05/25/2017

Analysis		Result Units	Reference Range	Chart
Haematology				
7 Blood count				
7 Leucocytes		7,15 Tsd./ul	3,90 - 9,80	[....*...]
7 Erythrocytes		5,23 Mill./ul	4,54 - 5,77	[....*...]
7 Hemoglobin		17,2 g/dl	13,5 - 17,5	[.....*]
7 Hematocrit	+	56,10 %	40,00 - 51,00	[.....* >]
7 MCV	+	107,30 fl	80,00 - 96,00	[.....* >]
7 MCH		32,90 pg	28,00 - 33,00	[.....*]
7 MCHC	-	30,70 g/dl	33,00 - 37,00	<*]
7 Thrombocytes		262,00 Tsd./ul	146,00 - 328,00	[....*...]
7 Differential Blood count				
7 Neutroph. Granulocytes		58,30 %	40,00 - 75,00	[....*...]
7 Lymphocytes		29,10 %	17,00 - 47,00	[...*....]
7 Monocytes		8,30 %	4,00 - 12,00	[....*...]
7 Eosin. Granulocytes		3,60 %	< 7,00	[....*...]
7 Basoph. Granulocytes		0,70 %	< 2,00	[..*.....]

Borrelia EliSpot

1 Borrelia b. Full Antigen		1 SI
0-1 = negative		
2-3 = weak positive		
> 3 = positive		
1 Borrelia b. OSP-Mix	!	3 SI
0-1 = negative		
2-3 = weak positive		
> 3 = positive		
1 Borrelia burgdorferi LFA-1		1 SI
0-1 = negative		
2-3 = weak positive		
> 3 = positive		

The result of the Elispot test indicates weak current cellular activity against Borrelia burgdorferi.

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<p>Explanation of antigens: Borrelia-burgdorferi Full Antigen: Borrelia burgdorferi B31 reference strain (Borrelia b sensu stricto) Borrelia-burgdorferi Peptide Mix: OspA from Borrelia b. sensu stricto, Borrelia afzelii, Borrelia garinii + OspC native + DbpA recombinant. Borrelia-burgdorferi LFA-1 (Lymphocyte Function Antigen 1) Own body protein + Borrelia burgdorferi sensu stricto (shared epitope). LFA1 can be associated with autoimmune diseases: collagenosis, Rheumatoid Arthritis, vasculitis. If positive or borderline positive look at: ANA, CCP-antibodies, ANCA.</p>				
CD3-/CD57+ Cells				
7 CD3-/CD56+ Flow Cytometry				
7 T cells CD3+ (%)	75,89	%	62,00 - 80,00	[.....*.]
7 T cells CD3+ (absolute)	1579	/ul	900 - 1900	[.....*..]
7 NK cells CD56+ CD3- (%)	11,07	%	6,00 - 29,00	[.*.....]
7 NK cells CD56+ CD3- (absolute)	230	/ul	60 - 700	[..*.....]
7 CD57+ NK-cells (%)	16,46	%	2,00 - 77,00	[.*.....]
7 CD57+ NK-cells (absolute)	- 38	/ul	100 - 360	<*]
<p>The result of the CD57-cell count indicates chronic immune-suppression, which can be caused by Borrelia burgdorferi or other bacteria like Chlamydia pneumoniae or Mycoplasma pneumoniae.</p>				
Borrelia IgG-/IgM-SeraSpot®				
4 Borr. burgdorferi SeraSpot IgG	negative		negative	
4 Borr. SeraSpot VlsE (afzelii)	negative		negative	
4 Borr. SeraSpot p39 (afzelii)	negative		negative	
4 Borr. SeraSpot p58 (garinii)	negative		negative	
4 Borr. SeraSpot p100 (garinii)	negative		negative	
4 Borr. SeraSpot OspC (afzelii)	negative		negative	
4 Borr. SeraSpot OspC (garinii)	negative		negative	
4 Borr. SeraSpot OspC (s.s.)	negative		negative	
4 Borr. SeraSpot dbpA (afzelii)	negative		negative	
4 Borr. SeraSpot dbpA (garinii)	negative		negative	
4 Borr. SeraSpot dbpA (s.s.)	negative		negative	
4 Borr. burgdorferi SeraSpot IgM	negative		negative	
4 Borr. SeraSpot VlsE (afzelii)	negative		negative	
4 Borr. SeraSpot p39 (afzelii)	negative		negative	



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Analysis	Result	Units	Reference Range	Chart
4 Borr. SeraSpot p58 (garinii)	negative		negative	
4 Borr. SeraSpot p100 (garinii)	negative		negative	
4 Borr. SeraSpot OspC (afzelii)	negative		negative	
4 Borr. SeraSpot OspC (garinii)	negative		negative	
4 Borr. SeraSpot OspC (s.s.)	negative		negative	
4 Borr. SeraSpot dbpA (afzelii)	negative		negative	
4 Borr. SeraSpot dbpA (garinii)	negative		negative	
4 Borr. SeraSpot dbpA (s.s.)	negative		negative	

The specific *Borrelia burgdorferi*-IgG/IgM-antibodies by SeraSpot (modern *Borrelia* Westernblot) indicate no humoral immune response against *Borrelia burgdorferi*.
Please look at the *Borrelia*-EliSpot and the CD57-positive NK-cells. Take into consideration the clinical symptoms and the differential diagnosis (co-infections).

Chlamydia pneumoniae EliSpot

- 1 Chlamydia pneumoniae-EliSpot ! 5 SI**
- 0-1 = negative
2-3 = weak positive
> 3 = positive

The result of the EliSpot test indicates current cellular activity against *Chlamydia pneumoniae*.

Chlamydia pneum. IgG-/IgA-AB

- 4 Chlam.pneum. IgG-AB (ELISA) positive ! 1,278 Ratio**
- Ratio < 0,8 = negative
Ratio 0,8 bis 1,1 = weak
Ratio >= 1,1 = positive

- 4 Chlam.pneum. IgA-AB (ELISA) negative 0,276 Ratio**
- Ratio < 0,8 = negative
Ratio 0,8 bis 1,1 = weak
Ratio >= 1,1 = positive

The specific *Chlamydia pneumoniae*-IgG-antibodies indicate humoral immune response against *Chlamydia pneumoniae*.
Please look at the *Chlamydia pneumoniae*-EliSpot for the current cellular activity.



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Analysis	Result	Units	Reference Range	Chart
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EBV EliSpot (lytic+latent)

1 EBV EliSpot (lytic) ! 89 SI

0-1 = negative
2-3 = weak positive
> 3 = positive

1 EBV EliSpot (latent) ! 12 SI

0-1 = negative
2-3 = weak positive
> 3 = positive

The results of the EliSpot tests indicate current cellular activity against Epstein Barr Virus (EBV).

Explanation of EBV antigens:

EBV-lytic antigen: sign for production of infectious EBV virions

EBV-latent antigen: sign for EBV latency with no production of infectious EBV virions

EBV IgG/IgM/EBNA/Early/Avi.-AB

4 EBV Serologie (IFT)

4 EBV IgG-antibodies (IFT) positive negative

4 EBV IgM-antibodies (IFT) negative negative

4 EBV Early Antigen (IFT) negative negative

4 EBV EBNA1 IgG-antibodies (IFT) positive negative

4 EBV Avidity high low

The specific EBV-IgG- and EBV-EBNA-antibodies indicate humoral immune response against Epstein Barr Virus (former or EBV-infection in convalescence?).

Please look at the current T-cellular EBV-activity by the EBV-EliSpot.

validated by

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