

EQA round: AIM1/24 - Autoimmunity

Deadline: 15.3.2024

Setup: groups - M (measurement principle)

AV = assigned value

N_{tot} = total number of the resultsN_{eva} = number of the results assessed

CVP = consensus of all participants

N_{rel} = relative number of the resultsN_{suc} = number of successful results

>>> ... expected result

S_{rel} = relative success

> ... acceptable result

± ... result not assessed

Test Sample Group	Frequency of the results			Success		
	AV	N _{tot}	N _{rel} Result [%]	N _{eva}	N _{suc}	S _{rel} [%]
Set 1						
(560) ANA screening (antibodies against cell nucleus) - prove		79		79	75	95
Sample A1		79		79	76	96
(1) Fluorescent methods	CVP >>>	69	87 Negative 1 1,3 Inconclusive result (borderline) 2 2,5 Positive			
(2) EIA methods	CVP >>>	7	8,9 Negative			
Sample B1		79		79	78	99
(1) Fluorescent methods	CVP >>>	72	91 Positive			
(2) EIA methods	CVP >>>	1	1,3 Negative 6 7,6 Positive			
(572) ANA screening (antibodies against cell nucleus) - semi-quantity		68		0		
Sample A1		68		0		
(0) Not specified	±	50	74 titre 0 (not measurable) ± 7 10 titre 40 ± 11 16 titre 80			
Sample B1		68		0		
(0) Not specified	±	2	2,9 titre 40 ± 3 4,4 titre 80 ± 1 1,5 titre 160 ± 4 5,9 titre 640 ± 16 24 titre 1280 ± 42 62 titre 2560			
(561) ANA - type of fluorescence - nucleus		72		72	67	93
Sample A1		72		72	68	94
(0) Not specified	CVP >>>	1	1,4 Not specified 68 94 No fluorescence 1 1,4 Coarse or fine speckled or nuclear matrix 1 1,4 Coarse or fine speckled or nuclear matrix; Homogenous or clumpy nucleolar pattern 1 1,4 Coarse or fine speckled or nuclear matrix; Midbody pattern (MSA-2)			
Sample B1		72		72	68	94
(0) Not specified	CVP >>>	1	1,4 Smooth membranous nuclear pattern; Coarse or fine speckled or nuclear matrix 68 94 Coarse or fine speckled or nuclear matrix 1 1,4 Coarse or fine speckled or nuclear matrix; No fluorescence 1 1,4 Coarse or fine speckled or nuclear matrix; Centromere F pattern 1 1,4 Coarse or fine speckled or nuclear matrix; DFS 70 like			
(563) ANA screening (antibodies against cytoplasm) - prove		69		0		
Sample A1		69		69	69	100
(1) Fluorescent methods	CVP >>>	69	100 Negative			
Sample B1		69		0		
(1) Fluorescent methods	±	52	75 Negative ± 2 2,9 Inconclusive result (borderline) ± 15 22 Positive			
(573) ANA screening (antibodies against cytoplasm) - semi-quantity		67		0		
Sample A1		67		0		
(0) Not specified	±	52	78 titre 0 (not measurable) ± 7 10 titre 40 ± 8 12 titre 80			
Sample B1		67		0		
(0) Not specified	±	35	52 titre 0 (not measurable) ± 7 10 titre 40 ± 10 15 titre 80 ± 8 12 titre 160 ± 4 6 titre 320 ± 2 3 titre 640			

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	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
	±	1	1,5	titre 1280			
(564) ANA - type of fluorescence - cytoplasma		71				0	
Sample A1		71			71	71	100
(0) Not specified	CVP >>>	71	100	No fluorescence			
Sample B1		71				0	
(0) Not specified	±	1	1,4	Not specified			
	±	52	73	No fluorescence			
	±	15	21	Fine speckled cytoplasmic pattern			
	±	1	1,4	Peroxisomes			
	±	1	1,4	Lysozomal view			
	±	1	1,4	Unknown type of fluorescence			
Set 2							
(565) ANCA imunofluorescence - prove		59			59	57	97
Sample A2		59			59	57	97
(0) Not specified	CVP >>>	1	1,7	Positive			
(1) Fluorescent met. (ethanol)		1	1,7	Negative			
	CVP >>>	41	69	Positive			
(2) Fluorescent met. (formalin)	CVP >>>	7	12	Positive			
(99) Another measurement principle		1	1,7	Negative			
	CVP >>>	8	14	Positive			
Sample B2		59			59	59	100
(0) Not specified	CVP >>>	1	1,7	Positive			
(1) Fluorescent met. (ethanol)	CVP >>>	42	71	Positive			
(2) Fluorescent met. (formalin)	CVP >>>	7	12	Positive			
(99) Another measurement principle	CVP >>>	9	15	Positive			
(574) ANCA IF (ethanol) - semi-quantity		50				0	
Sample A2		50				0	
(0) Not specified	±	7	14	titre 20			
	±	7	14	titre 40			
	±	12	24	titre 80			
	±	7	14	titre 160			
	±	10	20	titre 320			
	±	5	10	titre 640			
	±	1	2	titre 1280			
	±	1	2	titre 2560			
Sample B2		50				0	
(0) Not specified	±	1	2	Not specified			
	±	3	6	titre 20			
	±	2	4	titre 40			
	±	2	4	titre 80			
	±	8	16	titre 160			
	±	13	26	titre 320			
	±	13	26	titre 640			
	±	7	14	titre 1280			
	±	1	2	titre 2560			
(578) ANCA IF (formalin) - semi-quantity		45				0	
Sample A2		45				0	
(0) Not specified	±	3	6,7	titre 20			
	±	3	6,7	titre 40			
	±	1	2,2	titre 80			
	±	13	29	titre 160			
	±	13	29	titre 320			
	±	7	16	titre 640			
	±	4	8,9	titre 1280			
	±	1	2,2	titre 2560			
Sample B2		45				0	
(0) Not specified	±	3	6,7	titre 20			
	±	4	8,9	titre 40			
	±	7	16	titre 80			
	±	11	24	titre 160			
	±	7	16	titre 320			
	±	9	20	titre 640			
	±	4	8,9	titre 1280			
(566) ANCA - type of fluorescence		57			57	53	93
Sample A2		57			57	55	96
(0) Not specified		1	1,8	No fluorescence			
		1	1,8	Perinuclear fluorescence			
	CVP >>>	55	96	Cytoplasmic granular fluorescence			

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Test Sample Group	AV	N _{tot}	Frequency of the results		Success					
			N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]			
Sample B2		57								
(0) Not specified	CVP >>>	55	96	Perinuclear fluorescence			57	55	96	
		2	3,5	Perinuclear fluorescence; ANA						
(569) anti-myeloperoxidase		68					68	68	100	
Sample A2		68					68	68	100	
(1) Fluorescent methods	CVP >>>	1	1,5	Negative						
(2) EIA methods	CVP >>>	49	72	Negative						
(5) LIA, ILMA	CVP >>>	10	15	Negative						
(6) Immunoblotting	CVP >>>	6	8,8	Negative						
(99) Another measurement principle	CVP >>>	2	2,9	Negative						
Sample B2		68					68	68	100	
(1) Fluorescent methods	CVP >>>	1	1,5	Positive						
(2) EIA methods	CVP >>>	49	72	Positive						
(5) LIA, ILMA	CVP >>>	10	15	Positive						
(6) Immunoblotting	CVP >>>	6	8,8	Positive						
(99) Another measurement principle	CVP >>>	2	2,9	Positive						
(570) anti-proteinase III		68					68	66	97	
Sample A2		68					68	66	97	
(1) Fluorescent methods	CVP >>>	1	1,5	Positive						
(2) EIA methods		2	2,9	Negative						
	CVP >>>	47	69	Positive						
(5) LIA, ILMA	CVP >>>	10	15	Positive						
(6) Immunoblotting	CVP >>>	6	8,8	Positive						
(99) Another measurement principle	CVP >>>	2	2,9	Positive						
Sample B2		68					68	68	100	
(1) Fluorescent methods	CVP >>>	1	1,5	Negative						
(2) EIA methods	CVP >>>	49	72	Negative						
(5) LIA, ILMA	CVP >>>	10	15	Negative						
(6) Immunoblotting	CVP >>>	6	8,8	Negative						
(99) Another measurement principle	CVP >>>	2	2,9	Negative						
Set 3										
(585) anti-centromere		76					76	76	100	
Sample A3		76					76	76	100	
(1) Fluorescent methods	CVP >>>	7	9,2	Negative						
(2) EIA methods	CVP >>>	21	28	Negative						
(5) LIA, ILMA	CVP >>>	3	3,9	Negative						
(6) Immunoblotting	CVP >>>	43	57	Negative						
(99) Another measurement principle	CVP >>>	2	2,6	Negative						
Sample B3		76					76	76	100	
(1) Fluorescent methods	CVP >>>	7	9,2	Negative						
(2) EIA methods	CVP >>>	21	28	Negative						
(5) LIA, ILMA	CVP >>>	3	3,9	Negative						
(6) Immunoblotting	CVP >>>	43	57	Negative						
(99) Another measurement principle	CVP >>>	2	2,6	Negative						
(584) anti-ENA, antigen Jo-1		78					78	78	100	
Sample A3		78					78	78	100	
(1) Fluorescent methods	CVP >>>	1	1,3	Negative						
(2) EIA methods	CVP >>>	29	37	Negative						
(5) LIA, ILMA	CVP >>>	3	3,8	Negative						
(6) Immunoblotting	CVP >>>	44	56	Negative						
(99) Another measurement principle	CVP >>>	1	1,3	Negative						
Sample B3		78					78	78	100	
(1) Fluorescent methods	CVP >>>	1	1,3	Negative						
(2) EIA methods	CVP >>>	29	37	Negative						
(5) LIA, ILMA	CVP >>>	3	3,8	Negative						
(6) Immunoblotting	CVP >>>	44	56	Negative						
(99) Another measurement principle	CVP >>>	1	1,3	Negative						
(583) anti-ENA, antigen RNP		78					78	78	100	
Sample A3		78					78	78	100	
(1) Fluorescent methods	CVP >>>	1	1,3	Negative						
(2) EIA methods	CVP >>>	29	37	Negative						
(5) LIA, ILMA	CVP >>>	3	3,8	Negative						
(6) Immunoblotting	CVP >>>	44	56	Negative						
(99) Another measurement principle	CVP >>>	1	1,3	Negative						
Sample B3		78					78	78	100	
(1) Fluorescent methods	CVP >>>	1	1,3	Negative						
(2) EIA methods	CVP >>>	29	37	Negative						
(5) LIA, ILMA	CVP >>>	3	3,8	Negative						

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			N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
(6) Immunoblotting	CVP >>>	44	56	Negative			
(99) Another measurement principle	CVP >>>	1	1,3	Negative			
(582) anti-ENA, antigen Scl-70		79			79	79	100
Sample A3		79			79	79	100
(1) Fluorescent methods	CVP >>>	1	1,3	Negative			
(2) EIA methods	CVP >>>	29	37	Negative			
(5) LIA, ILMA	CVP >>>	3	3,8	Negative			
(6) Immunoblotting	CVP >>>	45	57	Negative			
(99) Another measurement principle	CVP >>>	1	1,3	Negative			
Sample B3		79			79	79	100
(1) Fluorescent methods	CVP >>>	1	1,3	Negative			
(2) EIA methods	CVP >>>	29	37	Negative			
(5) LIA, ILMA	CVP >>>	3	3,8	Negative			
(6) Immunoblotting	CVP >>>	45	57	Negative			
(99) Another measurement principle	CVP >>>	1	1,3	Negative			
(580) anti-ENA, antigen SS-A/Ro-60		79			79	79	100
Sample A3		79			79	79	100
(1) Fluorescent methods	CVP >>>	1	1,3	Positive			
(2) EIA methods	CVP >>>	29	37	Positive			
(5) LIA, ILMA	CVP >>>	3	3,8	Positive			
(6) Immunoblotting	CVP >>>	45	57	Positive			
(99) Another measurement principle	CVP >>>	1	1,3	Positive			
Sample B3		79			79	79	100
(1) Fluorescent methods	CVP >>>	1	1,3	Negative			
(2) EIA methods	CVP >>>	29	37	Negative			
(5) LIA, ILMA	CVP >>>	3	3,8	Negative			
(6) Immunoblotting	CVP >>>	45	57	Negative			
(99) Another measurement principle	CVP >>>	1	1,3	Negative			
(581) anti-ENA, antigen SS-B/La		79			79	76	96
Sample A3		79			79	76	96
(0) Not specified	CVP >>>	1	1,3	Positive			
(1) Fluorescent methods	CVP >>>	1	1,3	Positive			
(2) EIA methods	CVP >>>	29	37	Positive			
(5) LIA, ILMA	CVP >>>	3	3,8	Positive			
(6) Immunoblotting		3	3,8	Negative			
	CVP >>>	41	52	Positive			
(99) Another measurement principle	CVP >>>	1	1,3	Positive			
Sample B3		79			79	79	100
(0) Not specified	CVP >>>	1	1,3	Negative			
(1) Fluorescent methods	CVP >>>	1	1,3	Negative			
(2) EIA methods	CVP >>>	29	37	Negative			
(5) LIA, ILMA	CVP >>>	3	3,8	Negative			
(6) Immunoblotting	CVP >>>	44	56	Negative			
(99) Another measurement principle	CVP >>>	1	1,3	Negative			
Set 4							
(588) anti-dsDNA immunofluorescence - prove		52			52	52	100
Sample A4		52			52	52	100
(0) Not specified	CVP >>>	52	100	Positive			
Sample B4		52			52	52	100
(0) Not specified	CVP >>>	52	100	Negative			
(577) anti-dsDNA immunofluorescence - semi-quantity		48			0		
Sample A4		48			0		
(0) Not specified		±	1	2,1	titre 10		
		±	1	2,1	titre 80		
		±	2	4,2	titre 160		
		±	5	10	titre 320		
		±	22	46	titre 640		
		±	13	27	titre 1280		
		±	4	8,3	titre 2560		
Sample B4		48			0		
(0) Not specified		±	40	83	titre 0 (not measurable)		
		±	8	17	titre 10		
(589) anti-dsDNA other methods		60			60	60	100
Sample A4		60			60	60	100
(2) EIA methods	CVP >>>	42	70	Positive			
(5) LIA, ILMA	CVP >>>	8	13	Positive			
(6) Immunoblotting	CVP >>>	9	15	Positive			

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Test Sample Group	AV	N _{tot}	Frequency of the results		Success		
			N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
(99) Another measurement principle	CVP >>>	1	1,7	Positive			
Sample B4		60			60	60	100
(2) EIA methods	CVP >>>	42	70	Negative			
(5) LIA, ILMA	CVP >>>	8	13	Negative			
(6) Immunoblotting	CVP >>>	9	15	Negative			
(99) Another measurement principle	CVP >>>	1	1,7	Negative			
Set 5							
(591) anti-nukleosomes IgG		53			53	50	94
Sample A5		53			53	52	98
(2) EIA methods	CVP >>>	36	68	Negative			
		1	1,9	Positive			
(6) Immunoblotting	CVP >>>	16	30	Negative			
Sample B5		53			53	50	94
(2) EIA methods		2	3,8	Negative			
	CVP >>>	35	66	Positive			
(6) Immunoblotting		1	1,9	Inconclusive result (borderline)			
	CVP >>>	15	28	Positive			