

SUPPLEMENTARY INFORMATION

1. Supplementary methods for Center 1 (Medical University of Innsbruck, Austria)

Assays Nr. 1, 2 and 9 (live CBA-IF)

For this study we used our live CBA-IF MOG-Ab assay as initially described in 2011^{1,2} and now widely used not only by our group, but also by other laboratories (**assay Nr. 1**). Our MOG-Ab assay was reevaluated in a blinded fashion by the German NEMOS study group in 2016³, with an excellent specificity of 99.5% (95% CI 0.97 to 1.00) in 222 controls (MS, neurological and healthy controls). Further, a large blinded study using our MOG-Ab assay revealed a specificity of 100% in 200 patients with chronic progressive MS⁴.

In response to a report of possible co-detection of IgM MOG-Ab with the anti-IgG (H+L) secondary antibody used in our original assay⁵, we have refined our assay by using a human IgG(Fc)-specific secondary antibody instead of an anti-human IgG(H+L) secondary antibody^{3,6}.

For all CBAs HEK-293 cells were grown in 75cm² flasks using DMEM culture medium containing 4.5g/l glucose, 10% FCS, 4mM L-glutamine (Life Technologies) and 1xnon-essential amino acids (NEAA, Life Technologies) and passaged every 3 days.

HEK-293 cells were seeded into 96-well cell culture plates (TPP) at a density of 200.000 cells/ml using the culture medium mentioned above. 24h after seeding, transfection was performed using the pEGFP-N1-hMOGalpah1 plasmid and the transfection reagent Fugene HD (Promega). Cells were maintained in a humified incubator until commencing the assay.

In principal, the set-up of the different analysis was designed to avoid multiple thawing cycles: Therefore, sera were first screened at a dilution of 1:20 and 1:40 using the anti-human IgG H+L antibody (**assay Nr. 1**) and in parallel in serial dilution 1:20 to 1:160 using the human anti-MOG IgM-specific antibody (**assay Nr. 9**) as most patient IgM titers can be found in this range according to our experience. After detection of a positive signal during the screening procedure, sera were retested using serial dilutions in two-fold steps starting at 1:20. Human anti-MOG IgG Fc-specific testing (**assay Nr. 2**) was performed according to the screening result of the IgG H+L result: If negative, the negative result was confirmed by sera dilutions 1:20 and 1:40. In case of positive IgG H+L signals, serial titrations were carried out in parallel to the IgG H+L titrations and (possible) IgM titrations to thaw the sample only 2 times for all CBA-IF analysis. Briefly, 24h post-transfection, plates were removed from the incubator and the culture medium was replaced by blocking solution, consisting of 0.2 µg/ml goat IgG (Sigma) in 10% heat-inactivated FCS in PBS (Sigma, assay buffer). After 10 minutes, blocking was removed and diluted samples were added, followed by an incubation for 1h at 4°C. Thereafter, cells were washed three times using assay buffer, followed by incubation with the appropriate secondary antibody (Cy 3TM-conjugated anti-human IgG H+L, Jackson ImmunoResearch 109-166-088,

1:200; Alexa Fluor®594-conjugated goat anti-human IgG Fcγ Fragment specific, Jackson ImmunoResearch 109-586-098, 1:750; Alexa Fluor®594-conjugated goat anti-human IgM Fc_{5μ} Fragment specific, Jackson ImmunoResearch 109-585-129, 1:750; all antibodies were diluted in assay buffer) for 30 minutes at room temperature. Cells were washed three times with assay buffer and finally DAPI (0.1 µg/ml in assay buffer, Sigma) was added to indicate dead cells. Screening and determination of titer levels was performed by two investigators, both using individual result sheets and being blinded to the results of the other. The microscope was a Leica 4000B with a BGR filter. End-point titer levels were defined by the last dilution at which a specific signal was observed. Concordance rate between raters was 100%.

Assays Nr. 2, 3 and 9 were validated using 322 serum samples from people with inflammatory demyelinating diseases and healthy controls. eFigure 1 and eTable 1 show the results for the initial validation of this assay including the definition of the cut-off value and the comparison with our original IgG(H+L) assay. From eTable 1 it is evident that the specificity of assay Nr. 2 is higher than that of our initial MOG-Ab assay (assay Nr. 1), which is mainly due to the elimination of cross-reactive IgM seropositive samples.

Table e-1 Characterization of assays Nr. 1, 2, 3 and 9 for serum MOG-Ab

	CBA-IF IgG(H+L) Cut-off value ≥ 1:160 Assay Nr .1	CBA-IF IgG(Fc) Cut-off value ≥ 1:640 Assay Nr. 2	CBA-FACS IgG(Fc) Cut-off value ≥ 5 Assay Nr. 3	CBA-IF IgM Cut-off value ≥ 1:160 Assay Nr .9
Optic neuritis	32 / 35 (91%)	30 / 35 (86%)	28 / 35 (80%)	2 / 35 (6%)
Myelitis	10 / 11 (91%)	9 / 11 (82%)	7 / 11 (64%)	1 / 11 (9%)
ADEM / MDEM	46 / 57 (81%)	45 / 57 (78%)	41 / 57 (72%)	9 / 57 (16%)
AQP4-Ab negative NMOSD	19 / 22 (86%)	17 / 22 (77%)	12 / 22 (55%)	2 / 22 (9%)
AQP4-Ab positive NMOSD	0 / 17 (0%)	0 / 17 (0%)	0 / 17 (0%)	1 / 17 (6%)
Multiple sclerosis	3 / 120 (2%)	0 / 120 (0%)	2 / 120 (2%)	6 / 120 (5%)
Healthy controls	1 / 60 (2%)	0 / 60 (0%)	2 / 60 (3%)	7 / 60 (12%)

ADEM = acute disseminated encephalomyelitis, MDEM = multiphasic disseminated encephalomyelitis, AQP4 = aquaporin 4, NMOSD = neuromyelitis spectrum disorder.

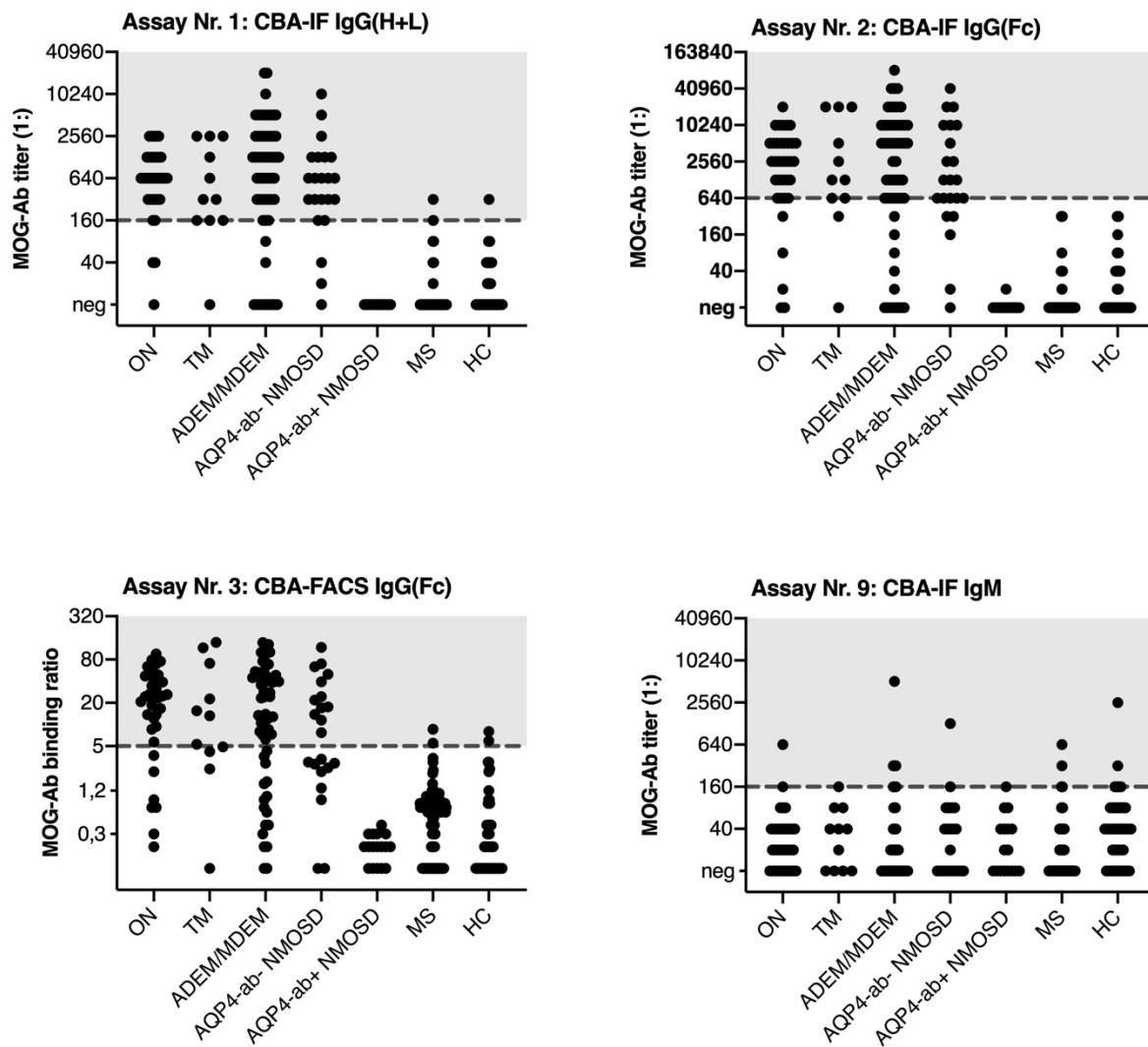


Figure e-1 Characterization and validation of assays Nr. 2, 3 and 9

The scatter dot plots show the quantitative MOG-Ab results for assays Nr. 2, and 9 and for comparison also for assay Nr.1 according to clinical diagnosis. Cut-off values are indicated by the dashed grey lines and positive samples are highlighted in grey.

Assay Nr. 3 (*live CBA-FACS*)

HEK293 cells were transduced with commercially purchased adeno-associated virus (AAV) vectors containing AAV2-CMV-hMOG-GFP (SignaGen Laboratories, Rockville, MD, USA). According to the manufacturer's guidelines, 0.5 Mio cells were seeded in a 6-well plate and infected with virus at a concentration of 0.1 Mio multiplicity of infection (MOI), stored and incubated overnight at 37°C and 8% CO₂. Cells were then transferred into new culture medium and transduction efficacy was measured by fluorescent activated cell sorting measuring the expressed GFP signal. Transduced cells were cultured for two weeks and subsequently single-cell sorted by our core facility. GFP expressing single cells were collected in a 96-well plate and successively expanded. All analysis was performed with a monoclonal cell line derived

from one single AAV-MOG transduced clone showing surface expression of MOG and good GFP expression.

The CBA-FACS assay was performed using HEK293 (HEK) cells and AAV-MOG-GFP transduced HEK293 (AAV-MOG) cells. For the assay, both cell lines were trypsinized, counted and mixed equally (1+1) to a density of 2 Mio/ml in 10% heat-inactivated FCS in PBS containing 1mM EDTA (FCS-EDTA). The cell mixture was placed on an upside-down rotator in the dark at room temperature for one hour of recovery. Sera were spun down at 10000g for 5min and diluted 1:50 in FCS-EDTA buffer. After recovery, 100 μ l/well of cells were transferred into a round-bottom 96 well plate (TPP) and 100 μ l/well of sera added in duplicates, giving a final serum dilution of 1:100. In addition to the analyzed samples, three control sera (high, medium, negative), as well as a calibrator serum and blank were added to each plate. The calibrator was placed in two duplicates on different positions on the plate to control for and ensure equal conditions for all samples. After one hour at 4°C on a horizontal shaker, cells were washed three times with FCS-EDTA and the secondary anti-human IgG Fc-specific APC-labelled antibody (1:200, Jackson ImmunoResearch 109-135-098) was added (100 μ l/well) for 30min at room temperature in the dark on a horizontal shaker. After two more washing steps, the cell pellet was dissolved in 30 μ l/well 1mM EDTA in PBS and 100 μ l/well cell-fix solution (BD) were added. Cells were fixed at 4°C for 15min. Measurement was performed on an Accuri C6 flow cytometer (BS), gating on the cell population as a whole and further gating on HEK only and AAV-MOG populations, restricting uptake to 10000 AAV-MOG cells. For calculations, the FL4 median fluorescence intensity (MFI) was used for both selected populations. The calculation for the final values was performed by first calculating the mean of the sample duplicate, followed by subtracting the MFI (HEK) of the MFI (AAV-MOG), resulting in the delta MFI of the sample. Finally, each sample delta MFI was calibrated with the delta MFI of the calibrator, therefore compensating for possible differences in test performance per day. Controls and the second calibrator were used as additional quality controls of each assay. Over the course of three years of performing the FACS assay the following control sample results were observed: negative control calibrated delta MFI mean 0.16 (standard deviation 0.04; coefficient of variation=23.04%), positive control calibrated delta MFI mean 19.8 (standard deviation 3.17; coefficient of variation=15.98%) and strong positive control calibrated delta MFI mean 54.4 (standard deviation 8.94; coefficient of variation=16.43%).

Assay Nr. 3 was validated using the same 322 serum samples from people with inflammatory demyelinating diseases and healthy controls as assay Nr. 2. eFigure 1 and eTable 1 show the results for the initial validation of this assay including the definition of the cut-off value and the comparison with our original IgG(H+L) assay. From this data we determined a cut-off level of ≥ 5.0 calibrated delta MFI using ROC analysis.

Assay Nr. 10 (ELISA)

ELISA was performed using the commercially available ANASPEC SensoLyteR anti-Human MOG (1-125) Specific Quantitative ELISA Kit (lots 1012 and 1013, by ANASPEC EGT group) according to the manufacturer's instruction. All samples were analyzed in duplicates. Sera were used at a dilution of 1:40 and the anti-human IgG-HRP (Component G) secondary antibody was used at a dilution of 1:2000 for 45min. Absorbance (OD) was measured at 450nm. Calculation of ng/ml was performed using a polynominal calibration curve (standard curve: $R^2=0.99$ in all plates assayed). Samples were determined to be positive at $\geq 150\text{ng/ml}$ as described before⁷.

2. Supplementary results

As a technical control we have also included 10 samples containing monoclonal humanized IgG or IgM antibodies provided by center 5 in phase 1. The humanized monoclonal MOG-Ab 8-18-C5⁸ (expressed as human IgG1 or IgM) was used in increasing dilutions to assess the technical sensitivity of assays. This antibody was not recognized in assays 4, 5, 6, 9 or 11. Detailed results are shown in efigure 2.

However, these results must be interpreted with caution since the humanized IgG1 MOG-Ab was not recognized by some of the secondary antibodies, particularly the anti-IgG1 antibodies. Furthermore, only dilutions, but no concentration, of the monoclonal antibodies were given and the final dilutions varied greatly between assays.

All centers reproduced the MOG-IgG results from their samples submitted for phase I (efigure 3).

Supplementary References

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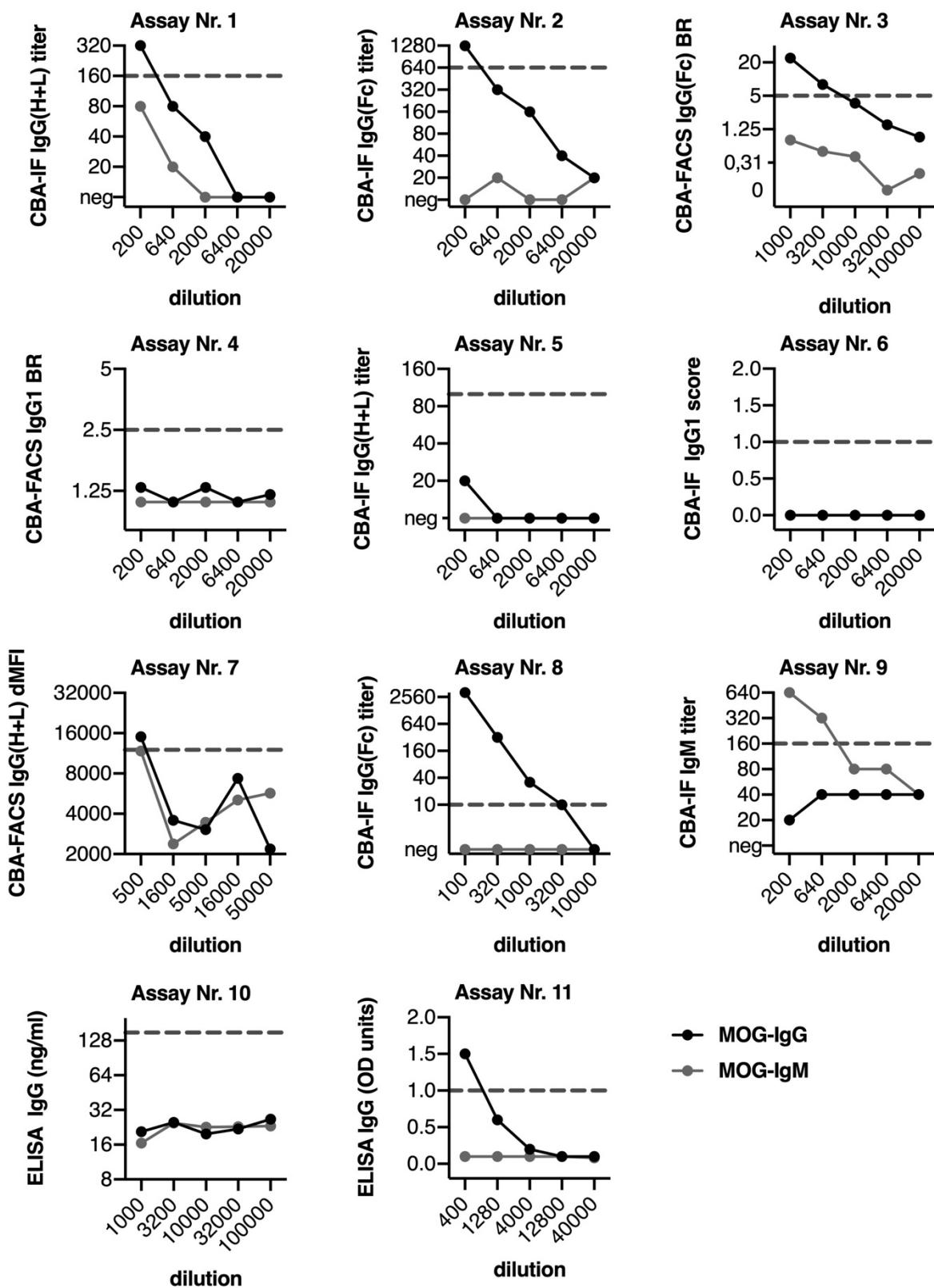


Figure e-2 Quantitative results for all assays for monoclonal humanized IgG or IgM antibodies
The scatter dot plots show the quantitative results for all assays for monoclonal humanized IgG or IgM 8-18-C5 antibodies according to the endpoint dilution of samples for each assay.
The cut-off values for all assays are indicated by the dashed grey lines.

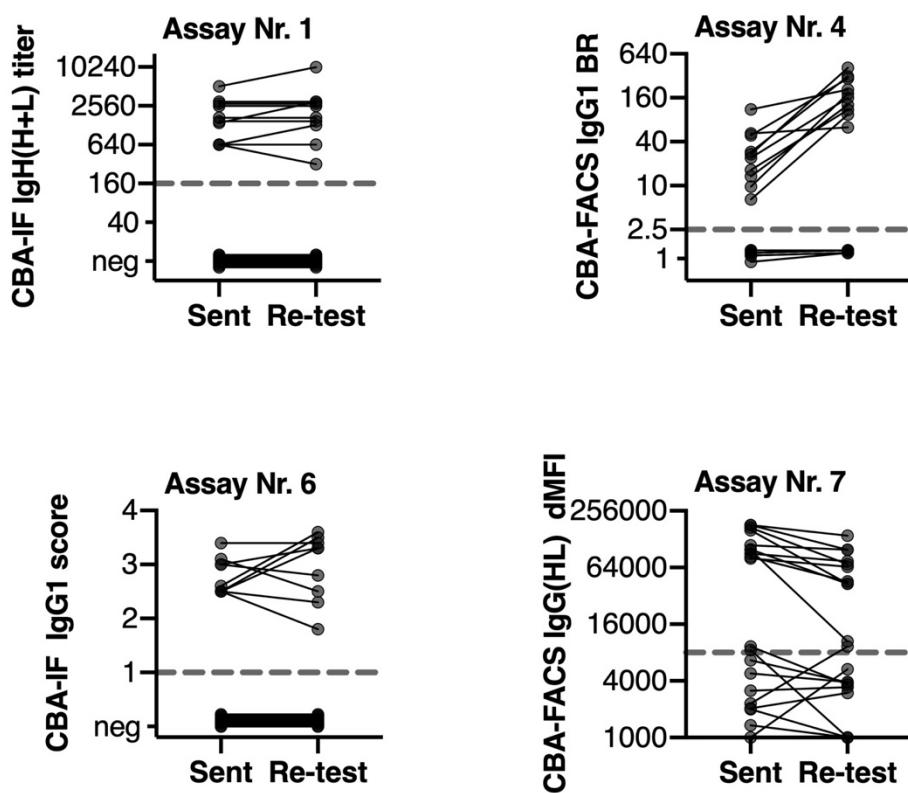


Figure e-3 Reproducibility of CBAs for MOG-IgG

(A) Quantitative results according to the quantitative values sent and re-tested by assay Nr. 1, Nr. 4, Nr. 6 and Nr. 7. BR=binding ratio, dMFI = delta mean fluorescence intensity.

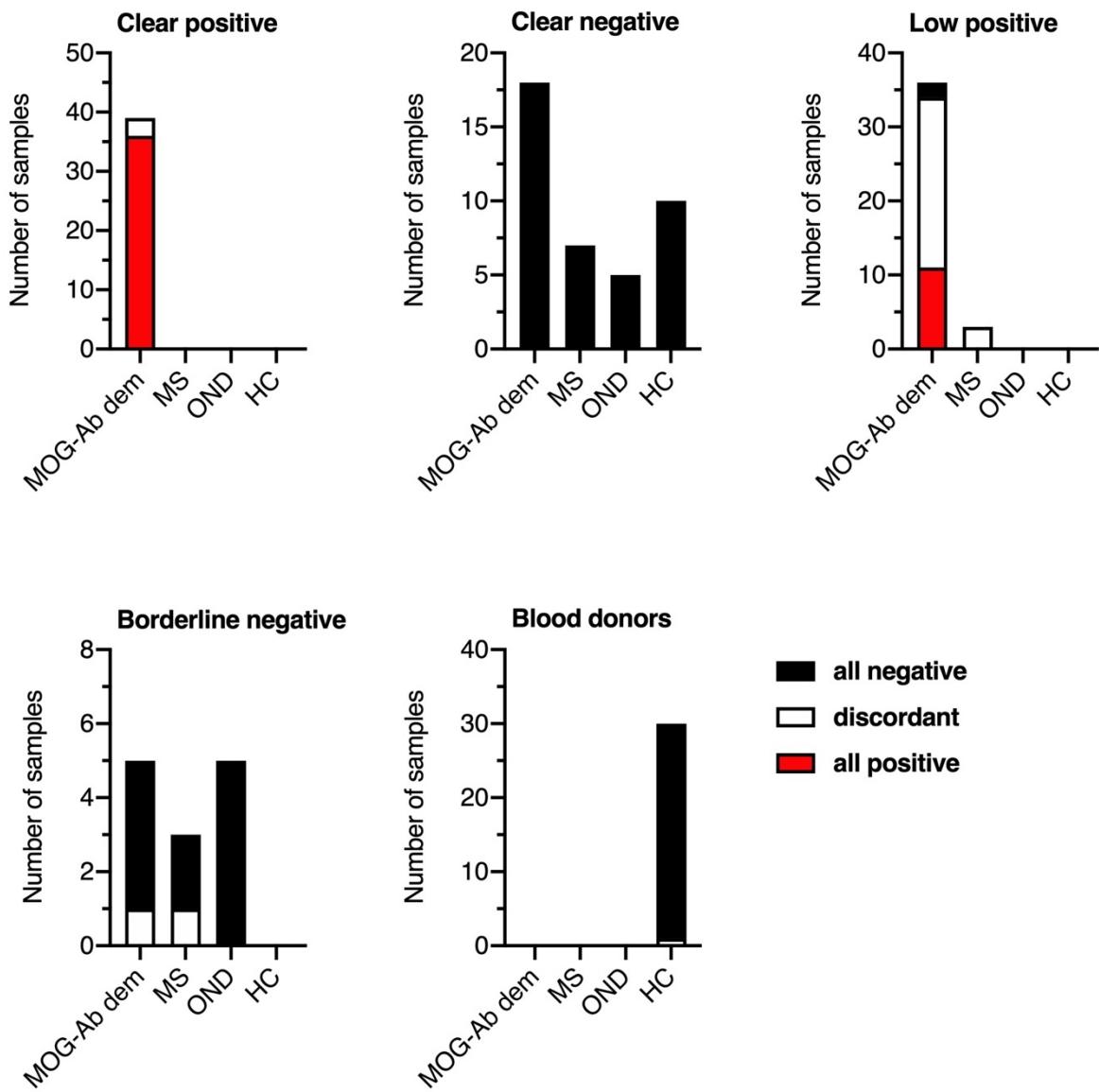


Figure e-4 Clinical phenotypes of samples according to the agreement of results in the 7 live CBAs for MOG-IgG antibodies and serostatus sent

Results (in number of all samples) are grouped according to their agreement in all 7 live CBAs (red: positive in all live CBAs, black: negative in all live CBAs, white: discordant). MOG-Ab dem = typical MOG-IgG associated clinical phenotypes such as optic neuritis, ADEM, myelitis, AQP4 seronegative NMOSD or other demyelinating phenotypes reported to be associated with MOG-IgG; MS = multiple sclerosis; OND = other neurological diseases; HC = healthy controls.

Table e-2 Serostatus (quanititative range) of samples sent by centers 1-4

	Center 1 (Innsbruck, assay Nr. 1)	Center 2 (Mayo Clinic, assay Nr. 4)	Center 3 (Oxford, assay Nr. 6)	Center 4 (Sydney, assay Nr. 7)
Cut-off value	$\geq 1:160$	≥ 2.5	≥ 1	Dependent on day of assay, determined on 24-aged matched controls
Sent as clear positive	N=10 1280 (640-5120)	N=10 25.4 (6.5-111.0)	N=9 2.5 (2.2-3.5)	N=10 104000 (83000-180000)
Sent as clear negative	N=10 0 (0)	N=10 1.2 (0.9-1.3)	N=10 0 (0)	N=10 2730 (60-9300)
Sent as low positive	N=10 160 (160-320)	N=11 3.1 (2.8-5.9)	N=8 1 (1-1.5)	N=10 26491 (15840-56738)
Sent as borderline negative	N=0	N=0	N=3 0 (0)	N=10 3524 (567-6530)

Data are shown as median (range). Assay Nr. 1 live CBA-IF IgG(H+L), titer (1:); assay Nr. 4 live CBA-FACS IgG1, FACS binding ratio; assay Nr. 6 live CBA-IF IgG1, binding score; Assay Nr. 7 live CBA-FACS IgG(H+L), delta mean fluorescence intensity.

Table e-3 Raw data (qualitative and quantitative results) for all samples analyzed in this study according to the serostatus sent out for analysis

Sam- ple	Pha- -se	Sent as	Quantitative results for MOG-Ab assays											Qualitative results (negative, positive) for MOG-Ab assays													
			Assay Nr. 1: live CBA- IF IgG(H +L)	Assay Nr. 2: live CBA- IF IgG(F c)	Assay Nr. 3: live CBA- FACS IgG(F c)	Assay Nr. 4: live CBA- FACS IgG1	Assay Nr. 5: live CBA- IF IgG(H +L)	Assay Nr. 6: live CBA- FACS IgG1	Assay Nr. 7: live CBA- FACS IgG(H +L)	Assay Nr. 8: fixed CBA- IF IgG(F c)	Assay Nr. 9: live CBA- IF IgM	Assay Nr. 10: comm ercial ELISA IgG	Assay Nr. 11: ELISA IgG(F c)	Assay Nr. 1: live CBA- IF IgG(H +L)	Assay Nr. 2: live CBA- IF IgG(F c)	Assay Nr. 3: live CBA- FACS IgG1	Assay Nr. 4: live CBA- FACS IgG1	Assay Nr. 5: live CBA- IF IgG(H +L)	Assay Nr. 6: fixed CBA- IF IgG(F c)	Assay Nr. 7: fixed CBA- IF IgG(F c)	Assay Nr. 8: fixed CBA- IF IgG(F c)	Assay Nr. 9: live CBA- IF IgM	Assay Nr. 10: comm ercial ELISA IgG	Assay Nr. 11: ELISA IgG(F c)			
EI-001	1	clear positive	640	1280	30.4	110.1	400	2.0	40594	0	20	7.8	0.05	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	neg	
EI-002	1	clear negative	0	20	0.0	1.5	0	0.0	-751	0	40	41.5	0.61	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	
EI-003	1	clear positive	10240	40960	116.6	85.6	3200	4.0	71236	100	0	37.6	0.04	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	neg	
EI-004	1	clear positive	1280	20480	58.0	63.1	800	2.5	70773	32	0	16.3	0.05	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	neg	
EI-005	1	clear positive	1280	10240	54.7	168.7	800	3.5	50258	1000	160	150.0	0.78	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	
EI-006	1	clear negative	0	0	0.2	1.3	0	0.0	928	0	80	150.0	0.54	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	pos	neg	neg	
EI-007	1	clear positive	1280	20480	85.0	207.7	1600	3.5	19889 7	320	0	68.3	0.07	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	neg
EI-008	1	clear positive	2560	10240	58.3	53.3	1600	3.0	65681	100	20	17.2	1.48	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	pos	neg
EI-009	1	clear positive	2560	10240	29.6	122.2	800	2.3	25993	100	40	150.0	0.21	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	pos	neg
EI-010	1	clear positive	1280	10240	10.7	53.3	800	2.5	23056	0	80	150.0	0.14	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	pos	neg
EI-011	1	controls IgM	0	20	0.2	1.1	0	0.0	8195	0	40	23.3	0.08	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
EI-012	1	clear positive	640	2560	29.0	159.8	600	2.3	12303	1000	0	92.5	1.10	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	pos	neg
EI-013	1	clear positive	320	2560	16.6	80.5	200	2.3	23604	32	80	128.0	0.10	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	neg
EI-014	1	clear positive	640	10240	57.5	279.0	1600	2.5	62918	3200	80	101.0	3.60	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	pos
EI-015	1	clear positive	2560	10240	24.1	93.9	800	2.3	68895	32	0	43.9	0.10	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	neg
EI-016	1	clear negative	40	20	0.5	2.2	0	0.0	2520	0	80	20.7	0.20	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
EI-017	1	clear positive	1280	10240	22.0	129.7	200	1.8	36174	10000	0	150.0	0.30	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	pos	neg
EI-018	1	clear positive	1280	2560	34.0	294.8	400	2.5	15741	0	0	150.0	0.20	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	pos	neg
EI-019	1	clear negative	0	0	0.2	1.1	0	0.0	840	0	0	9.9	0.10	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
EI-020	1	clear positive	320	2560	5.2	36.8	400	1.8	7403	0	0	150.0	0.10	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	pos	neg
EI-021	1	clear positive	2560	10240	66.4	314.6	800	3.5	32348	100	0	107.8	0.10	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	neg
EI-022	1	clear negative	0	0	0.2	1.2	0	0.0	1268	0	0	27.2	0.20	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg	neg
EI-023	1	clear positive	5120	40960	38.6	316.5	1600	3.5	18290	100	40	11.2	0.80	pos	pos	pos	pos	pos	pos	pos	pos	pos	pos	neg	neg	neg	neg

EI-024	1	clear negative	0	20	0.2	1.3	0	0.0	608	0	80	142.3	0.70	neg										
EI-025	1	controls IgG	320	1280	23.9	1.3		0.0	4160	3200	0	20.7	1.50	pos	pos	pos	neg	neg	neg	neg	neg	pos	neg	pos
EI-026	1	clear negative	0	0	0.7	1.2	0	0.0	3127	0	0	62.6	0.40	neg										
EI-027	1	clear negative	0	0	0.2	1.2	0	0.0	787	0	40	150.0	0.70	neg	pos	neg								
EI-028	1	clear positive	2560	20480	56.3	228.1	800	4.0	22852	0	20	21.6	0.10	pos	neg	neg	neg							
EI-029	1	clear negative	0	0	0.8	1.1	0	0.0	1477	0	0	19.9	0.10	neg										
EI-030	1	clear positive	1280	5120	74.5	51.5	1200	3.3	37107	100	20	25.4	0.10	pos	neg	neg								
EI-031	1	clear positive	1280	5120	39.4	312.2	800	2.3	37778	32	40	9.9	0.80	pos	neg	neg								
EI-032	1	clear positive	2560	40960	56.6	283.9	1600	2.8	91625	1000	0	64.9	1.50	pos	neg	pos								
EI-033	1	clear negative	0	0	0.5	1.3	0	0.0	815	0	0	21.0	0.10	neg										
EI-034	1	clear negative	0	0	0.4	1.4	0	0.0	3271	0	40	46.4	0.20	neg										
EI-035	1	clear positive	1280	5120	31.2	52.4	800	2.8	45192	32	20	45.0	0.30	pos	neg	neg								
EI-036	1	clear negative	0	0	0.3	1.3	0	0.0	-1900	0	160	25.8	0.10	neg	pos	neg	neg							
EI-037	1	clear positive	640	5120	4.0	125.5	800	2.3	3628	100	0	90.1	0.50	pos	pos	neg	pos	pos	pos	pos	neg	pos	neg	neg
EI-038	1	clear negative	0	0	0.6	1.3	0	0.0	5679	0	0	75.7	0.10	neg										
EI-039	1	clear negative	40	80	0.6	1.3	20	0.0	2586	0	0	89.3	0.20	neg										
EI-040	1	clear negative	0	0	0.2	1.3	0	0.0	10165	0	0	67.2	0.20	neg										
EI-041	1	clear negative	0	0	0.1	1.3	0	0.0	2413	0	40	150.0	0.10	neg	pos	neg								
EI-042	1	clear positive	2560	10240	39.7	242.7	1200	3.5	34438	1000	20	83.1	0.40	pos	neg	neg								
EI-043	1	controls IgG	80	320	8.0	1.1	0	0.0	6566	320	40	25.0	0.60	neg	neg	pos	neg	neg	neg	neg	neg	pos	neg	neg
EI-044	1	clear negative	0	0	0.1	1.2	0	0.0	-10	0	160	150.0	0.10	neg	pos	pos	neg							
EI-045	1	clear negative	0	0	0.1	1.3	0	0.0	1843	0	0	124.8	0.20	neg										
EI-046	1	controls IgM	0	0	0.1	1.1	0	0.0	2205	0	80	22.9	0.10	neg										
EI-047	1	clear negative	0	0	0.2	1.3	0	0.0	2304	0	160	19.2	0.30	neg	pos	neg								
EI-048	1	clear negative	40	160	0.4	1.5	20	0.0	5817	0	0	36.7	0.10	neg										
EI-049	1	clear negative	0	0	0.4	1.3	0	0.0	6287	0	40	150.0	0.20	neg	pos	neg								
EI-050	1	clear positive	320	80	2.1	3.3	400	0.0	13757	0	5120	128.8	0.40	pos	neg	neg	pos	pos	neg	pos	neg	pos	neg	neg
EI-051	1	clear negative	0	0	0.1	1.2	0	0.0	357	0	40	150.0	1.70	neg	pos	pos								
EI-052	1	controls IgG	0	20	0.9	1.2	0	0.0	616	0	40	26.6	0.10	neg										

EI-053	1	clear negative	20	80	2.9	1.2		0.0	919	0	40	150.0	0.10	neg	pos	neg							
EI-054	1	clear positive	5120	20480	38.1	101.0	3200	3.5	60983	100	0	31.6	0.10	pos	neg	neg							
EI-055	1	clear negative	0	0	0.0	1.3	0	0.0	-1896	0	0	150.0	0.10	neg	pos	neg							
EI-056	1	clear negative	0	0	0.0	1.3	0	0.0	5626	0	160	22.2	0.10	neg	pos	neg							
EI-058	1	clear positive	1280	10240	152.3	483.4	800	3.3	17062 ₇	3200	0	54.4	0.20	pos	neg	neg							
EI-059	1	clear negative	0	40	0.2	1.3	0	0.0	-11	0	0	25.3	0.10	neg									
EI-060	1	clear positive	5120	20480	14.3	98.5	2400	3.8	40950	0	2560	150.0	0.30	pos									
EI-061	1	clear negative	0	0	0.2	1.2	0	0.0	2650	0	40	46.2	0.10	neg									
EI-062	1	clear negative	0	0	0.1	1.2	0	0.0	4687	0	80	20.3	0.10	neg									
EI-063	1	clear positive	320	2560	25.1	181.3	300	2.3	22018	32	0	56.4	0.20	pos	neg	neg							
EI-064	1	clear negative	20	40	2.7	1.4	0	0.0	8547	0	80	102.1	0.10	neg									
EI-065	1	clear negative	0	20	0.7	1.2	0	0.0	1953	0	40	126.0	0.30	neg									
EI-066	1	controls IgM	0	0	0.4	1.1	0	0.0	5839	0	80	22.7	0.10	neg									
EI-067	1	clear positive	2560	20480	142.0	332.1	800	3.5	13683 ₅	10000	40	111.6	1.20	pos	neg	pos							
EI-068	1	clear positive	2560	20480	70.0	276.5	800	3.3	14648 ₆	1000	0	23.7	0.40	pos	neg	neg							
EI-069	1	clear positive	2560	10240	101.8	150.0	1600	3.5	53825	0	640	76.7	0.10	pos	neg								
EI-070	1	clear positive	1280	5120	25.1	22.3	1200	3.5	42257	0	20	150.0	0.10	pos	neg	pos							
EI-071	1	clear negative	0	0	0.0	1.3	0	0.0	-14984	0	40	47.9	0.10	neg									
EI-072	1	clear negative	0	0	0.4	1.3	0	0.0	2435	0	40	115.6	2.40	neg	pos	neg	neg						
EI-073	1	clear positive	1280	2560	6.0	152.1		1.3	15927	0	20	150.0	0.10	pos	neg								
EI-074	1	controls IgM	20	20	0.5	1.1	0	0.0	-2435	0	320	24.6	0.10	neg	pos	neg							
EI-075	1	clear negative	0	0	0.3	1.3	0	0.0	5320	0	0	150.0	0.20	neg	pos								
EI-076	1	clear negative	0	0	0.1	1.1	0	0.0	3456	0	0	99.4	0.10	neg									
EI-077	1	clear positive	2560	10240	73.7	172.6	1600	4.0	39461	100	0	12.6	0.10	pos	neg	neg							
EI-078	1	clear negative	0	0	0.2	1.2	0	0.0	9933	0	0	150.0	0.20	neg	pos	neg							
EI-079	1	clear negative	0	0	0.1	1.1	0	0.0	-2750	0	0	13.4	0.10	neg									
EI-080	1	clear negative	40	160	2.5	1.1	100	0.0	-1962	0	40	150.0	0.10	neg	pos	neg							
EI-081	1	clear positive	2560	20480	57.5	181.6	200	2.0	71178	3200	40	24.7	0.10	pos	neg	neg							
EI-082	1	controls IgG	0	40	1.5	1.1	0	0.0	4811	0	40	21.9	0.10	neg	pos	neg	neg						

EI-083	1	clear negative	0	0	0.1	1.2	0	0.0	1074	0	20	150.0	0.50	neg	pos	neg							
EI-084	1	clear negative	0	0	0.2	1.2	0	0.0	-7594	0	20	122.6	0.10	neg									
EI-085	1	clear positive	5120	40960	166.3	411.2	1600	3.5	93820	100	0	150.0	1.10	pos									
EI-086	1	clear negative	0	0	0.1	1.3	0	0.0	1410	0	40	69.4	0.40	neg									
EI-087	1	controls IgG	40	160	3.7	1.3	0	0.0	-888	32	40	19.8	0.20	neg	pos	neg	neg						
EI-088	1	clear positive	2560	40960	49.8	174.5	800	2.8	63351	1000	160	150.0	0.40	pos									
EI-089	1	controls IgM	80	0	0.8	1.1	0	0.0	3060	0	640	16.5	0.10	neg	pos	neg							
EI-090	1	clear positive	640	5120	15.7	127.4	800	2.3	36740	1000	80	60.6	0.20	pos	neg	neg							
EI-091	2	negative replicates	0	20	0.0	1.3	25	0.0	1152	0	0	64.0	0.59	neg									
EI-092	2	negative replicates	40	80	0.4	1.8	0	0.0	539	0	40	30.0	0.22	neg									
EI-093	2	negative replicates	0	0	0.1	1.1	0	0.0	5049	0	0	76.0	0.42	neg									
EI-094	2	borderline negative	80	320	2.4	4.6	50	0.3	3338	0	0	280.0	0.20	neg	neg	pos	pos	neg	neg	pos	neg	pos	neg
EI-095	2	low positive	0	80	0.9	1.0	0	0.0	3326	0	20	20.0	0.05	neg									
EI-096	2	low positive	320	1280	12.5	20.8	50	0.8	19987	32	0	114.0	0.07	pos	pos	pos	pos	pos	neg	pos	pos	neg	neg
EI-097	2	low positive	320	640	18.1	47.6	200	1.5	21060	100	0	280.0	0.31	pos	neg	pos							
EI-098	2	blood donors	0	20	0.1	1.2	0	0.0	845	0	20	280.0	0.26	neg	pos	neg							
EI-099	2	low positive	80	320	1.8	2.1	0	0.0	17602	0	20	150.0	0.58	neg	neg	neg	neg	neg	neg	pos	neg	neg	pos
EI-100	2	low positive	160	640	5.2	13.7	0	0.3	10539	100	40	85.0	0.79	pos	pos	pos	pos	neg	neg	pos	pos	neg	neg
EI-101	2	blood donors	0	0	0.0	1.1	0	0.0	1727	0	80	73.0	0.07	neg									
EI-102	2	low positive	160	160	6.5	8.9	50	0.0	16108	0	160	20.0	0.06	pos	neg	pos	pos	pos	neg	pos	neg	pos	neg
EI-103	2	low positive	80	320	0.2	1.5	300	1.8	6967	32	80	9.0	0.23	neg	neg	neg	pos	pos	neg	pos	pos	neg	neg
EI-104	2	low positive	160	2560	9.7	46.2	200	1.3	22675	32	40	280.0	0.32	pos	neg	pos							
EI-105	2	low positive	160	1280	9.0	47.1	200	1.3	27696	32	40	107.0	0.35	pos	neg	neg							
EI-106	2	blood donors	0	0	0.0	1.2	0	0.0	-1760	0	0	53.0	0.81	neg									
EI-107	2	blood donors	0	0	0.1	1.2	0	0.0	1547	0	0	82.0	0.25	neg									
EI-108	2	borderline negative	20	40	0.3	1.2	0	0.0	4381	0	80	238.0	0.14	neg	pos								
EI-109	2	borderline negative	0	0	0.0	1.1	0	0.0	1731	0	0	58.0	0.19	neg									
EI-110	2	negative replicates	0	0	0.2	1.2	0	0.0	2118	0	0	20.0	0.13	neg									
EI-111	2	negative replicates	40	20	0.2	1.3	1	0.0	2615	0	80	28.0	0.27	neg									

EI-112	2	negative replicates	0	80	0.4	1.1	0	0.0	104	0	0	137.0	0.11	neg									
EI-113	2	negative replicates	0	0	0.0	1.1	0	0.0	5211	0	0	71.0	0.25	neg									
EI-114	2	negative replicates	0	0	0.1	1.2	0	0.0	4008	0	160	25.0	0.36	neg	pos	neg							
EI-115	2	blood donors	0	20	0.1	1.1	0	0.0	2464	0	0	14.0	0.07	neg									
EI-116	2	borderline negative	160	640	7.2	28.4	50	0.8	11097	0	0	166.0	0.10	pos	pos	pos	pos	pos	neg	pos	pos	neg	pos
EI-117	2	blood donors	160	640	1.9	14.1	0	0.0	9495	0	40	38.0	0.10	pos	pos	neg	pos	neg	pos	neg	neg	neg	neg
EI-118	2	blood donors	0	0	0.0	1.1	0	0.0	544	0	20	5.0	0.06	neg									
EI-119	2	low positive	40	80	0.6	3.8	0	0.0	4649	0	0	280.0	3.69	neg	neg	neg	pos	neg	neg	neg	neg	pos	pos
EI-120	2	low positive	160	1280	0.6	4.4	50	0.8	2222	0	40	141.0	0.89	pos	pos	neg	pos	pos	neg	neg	pos	neg	neg
EI-121	2	blood donors	0	0	0.0	1.1	0	0.0	3580	0	40	7.0	0.08	neg									
EI-122	2	blood donors	0	0	0.0	1.2	0	0.0	1274	0	80	71.0	0.10	neg									
EI-123	2	borderline negative	20	80	0.1	1.2	0	0.0	4183	0	20	156.0	0.08	neg	pos	neg							
EI-124	2	borderline negative	20	40	0.3	1.6	0	0.0	5169	0	80	280.0	0.23	neg	pos								
EI-125	2	borderline negative	0	20	0.2	1.2	0	0.0	1340	0	40	94.0	0.33	neg									
EI-126	2	blood donors	20	40	0.1	1.2	0	0.0	544	0	20	280.0	0.16	neg	pos	neg							
EI-127	2	blood donors	0	0	0.1	1.1	0	0.0	4149	0	20	280.0	1.99	neg	pos	pos							
EI-128	2	blood donors	40	80	1.5	1.0	0	0.0	4071	0	40	151.0	0.12	neg	pos	neg							
EI-129	2	borderline negative	0	0	0.1	1.4	0	0.0	2765	0	20	30.0	1.12	neg	pos								
EI-130	2	borderline negative	0	0	0.0	1.1	0	0.0	855	0	0	36.0	0.12	neg									
EI-131	2	blood donors	0	0	0.0	1.1	0	0.0	514	0	0	9.0	0.10	neg									
EI-132	2	blood donors	0	40	0.1	1.2	0	0.0	-63	0	0	19.0	0.19	neg									
EI-133	2	blood donors	0	20	0.1	1.3	0	0.0	445	0	0	23.0	0.09	neg									
EI-134	2	low positive	20	80	0.9	1.4	1	0.0	2610	0	0	28.0	0.09	neg									
EI-135	2	low positive	80	160	1.8	6.4	25	0.0	5583	32	0	137.0	0.27	neg	neg	neg	pos	neg	neg	neg	pos	neg	neg
EI-136	2	borderline negative	20	20	0.3	1.2	0	0.0	1732	0	40	67.0	0.12	neg	pos	neg							
EI-137	2	borderline negative	0	0	0.0	1.1	0	0.0	3027	0	40	9.0	0.58	neg									
EI-138	2	blood donors	0	0	0.0	1.1	0	0.0	1109	0	20	34.0	0.19	neg									
EI-139	2	blood donors	20	20	0.2	1.3	0	0.0	3874	0	80	147.0	0.43	neg									
EI-140	2	low positive	320	640	14.9	15.6	200	1.0	25695	32	0	3.0	0.19	pos	neg	neg							

EI-141	2	low positive	320	1280	3.7	7.8	400	1.8	28430	100	0	50.0	0.76	pos	pos	neg	pos	pos	pos	pos	pos	neg	neg	neg
EI-142	2	blood donors	0	0	0.1	1.1	0	0.0	1574	0	20	158.0	0.45	neg	pos	neg								
EI-143	2	blood donors	0	0	0.1	1.1	0	0.0	1527	0	0	136.0	0.13	neg										
EI-144	2	blood donors	0	0	0.1	1.1	0	0.0	1806	0	0	19.0	0.08	neg										
EI-145	2	low positive	160	320	2.0	16.2	100	0.0	7305	0	160	251.0	0.31	pos	neg	neg	pos	pos	neg	neg	pos	pos	pos	neg
EI-146	2	low positive	640	2560	9.7	56.7	100	1.0	16574	32	40	155.0	0.23	pos	neg	pos	neg							
EI-147	2	blood donors	0	0	0.0	1.1	0	0.0	2312	0	40	39.0	0.27	neg										
EI-148	2	blood donors	0	0	0.1	1.1	0	0.0	-2021	0	0	136.0	0.12	neg										
EI-149	2	low positive	320	320	0.2	53.5	0	0.0	38478	100	0	5.0	0.35	pos	neg	neg	pos	neg	neg	pos	pos	neg	neg	neg
EI-150	2	low positive	160	640	5.1	4.4	100	0.0	20014	0	20	46.0	0.11	pos	pos	pos	pos	pos	neg	pos	pos	neg	neg	neg
EI-151	2	low positive	160	320	2.6	2.9	50	0.0	10421	32	80	239.0	1.24	pos	neg	neg	pos	pos	neg	pos	pos	neg	pos	pos
EI-152	2	low positive	160	320	2.6	2.2	25	0.0	6543	0	160	19.0	0.07	pos	neg	pos	neg	neg						
EI-153	2	low positive	320	320	1.6	1.5	200	1.0	25092	100	160	167.0	6.18	pos	neg	neg	neg	pos						
EI-154	2	low positive	160	160	7.0	17.9	50	0.0	35935	0	80	164.0	0.21	pos	neg	pos	pos	pos	neg	pos	pos	neg	pos	neg
EI-155	2	low positive	1280	2560	5.7	5.8	800	2.0	27646	32	0	286.0	0.38	pos	neg	pos								
EI-156	2	negative replicates	20	40	0.2	1.1	0	0.0	5816	0	0	33.0	0.08	neg										
EI-157	2	positive replicates	160	1280	19.0	61.5	3200	4.0	69556	32	20	13.0	0.09	pos	neg	neg								
EI-158	2	positive replicates	10240	40960	94.1	38.7	1200	2.3	73877	320	0	69.0	1.64	pos	neg	pos								
EI-159	2	positive replicates	5120	20480	77.6	101.3	800	1.8	12874 ₀	320	0	66.0	0.09	pos	neg	neg								
EI-160	2	positive replicates	2560	10240	41.7	28.7	800	2.3	70050	1000	0	18.0	2.40	pos	neg	pos								
EI-161	2	low positive	160	1280	2.9	4.8	300	1.0	14021	0	0	29.0	0.26	pos	pos	neg	pos	pos	pos	pos	pos	neg	neg	neg
EI-162	2	low positive	160	640	1.3	2.1	200	1.3	42853	0	160	55.0	0.17	pos	pos	neg	neg	pos	pos	pos	pos	pos	pos	neg
EI-163	2	low positive	160	640	4.7	4.3	200	1.0	16129	32	0	239.0	0.55	pos	pos	neg	pos	pos	pos	pos	pos	pos	neg	pos
EI-164	2	low positive	160	640	2.8	1.4	0	0.0	10630	0	80	87.0	0.14	pos	pos	neg	neg	neg	neg	pos	neg	neg	neg	neg
EI-165	2	low positive	320	1280	5.1	16.4	300	1.8	25342	0	0	63.0		pos	neg	neg	neg							
EI-166	2	blood donors	40	80	1.9	1.1	0	0.0	3892	0	40	151.0	0.15	neg	pos	neg								
EI-167	2	blood donors	0	40	0.2	1.3	0	0.0	1524	0	40	110.0	0.15	neg										
EI-168	2	blood donors	0	0	0.1	1.1	0	0.0	593	0	0	21.0	0.09	neg										
EI-169	2	low positive	20	80	0.2	1.2	200	1.0	5628	0	80	165.0	0.16	neg	neg	neg	pos	pos	neg	pos	neg	pos	neg	neg

EI-170	2	low positive	160	1280	6.6	26.3	200	1.5	16249	0	80	239.0	0.22	pos	neg	pos	neg							
EI-171	2	low positive	320	1280	23.0	63.6	200	1.3	28858	32	80	143.0	0.20	pos	neg	neg	neg							
EI-172	2	low positive	160	640	3.6	5.7	400	2.0	22177	0	20	13.0	0.16	pos	pos	neg	pos	pos	pos	pos	pos	neg	neg	neg
EI-173	2	low positive	1280	2560	3.5	23.6	400	2.3	19960	100	0	189.0	0.85	pos	pos	neg	pos	pos	pos	pos	pos	neg	pos	neg
EI-174	2	blood donors	0	20	0.2	1.1	0	0.0	1070	0	0	164.0	0.20	neg	pos	neg	neg							
EI-175	2	blood donors	0	0	0.0	1.1	0	0.0	983	0	40	129.0	0.10	neg										
EI-176	2	low positive	1280	1280	27.9	95.2	200	1.5	67087	100	40	71.0	0.12	pos	neg	neg	neg							
EI-177	2	low positive	320	320	6.8	3.5	200	1.5	24321	0	0	105.0	0.07	pos	neg	pos	pos	pos	pos	pos	pos	neg	neg	neg
EI-178	2	blood donors	0	0	0.2	1.0	0	0.0	705	0	0	182.0	0.09	neg	pos	neg								
EI-179	2	blood donors	0	0	0.0	1.1	0	0.0	-269	0	20	152.0	0.12	neg	pos	neg								
EI-180	2	borderline negative	0	0	0.1	1.1	25	0.0	3342	0	80	64.0	0.10	neg										
EI-181	2	borderline negative	0	0	0.1	1.1	0	0.0	1896	0	0	239.0	0.94	neg	pos	neg								
EI-182	2	low positive	320	1280	10.9	65.0	400	1.3	15681	0	40	98.0	0.22	pos	neg	neg	neg							
EI-183	2	blood donors	0	0	0.0	1.0	0	0.0	847	0	20	124.0	0.11	neg										
EI-184	2	low positive	40	160	1.7	4.8	50	0.3	6347	0	0	136.0	0.16	neg	neg	pos	pos	neg						
EI-185	2	low positive	160	320	2.0	2.9	50	0.0	10566	32	80	239.0	1.35	pos	neg	neg	pos	pos	neg	pos	pos	neg	pos	pos
EI-186	2	positive replicates	640	1280	18.2	57.8	800	2.0	48036	32	0	70.0	0.13	pos	neg	neg	neg							
EI-187	2	positive replicates	1280	5120	32.8	32.4	400	2.5	76301	1000	80	112.0	5.81	pos	neg	neg	pos							
EI-188	2	positive replicates	1280	10240	15.2	42.9	1200	2.8	48289	1000	0	46.0	1.65	pos	neg	neg	pos							
EI-189	2	positive replicates	640	2560	20.2	67.9	600	2.5	49013	32	0	239.0	0.44	pos	neg	pos	neg							
EI-190	2	positive replicates	2560	20480	45.3	125.1	800	2.3	76705	1000	0	118.0	2.58	pos	neg	neg	pos							