

Table S14: WGS-based HLA genotyping accuracy that indicates how many samples were fully correctly genotyped with ALPHLARD, OptiType, PHLAT, and HLA-VBSeq. N/A indicates that the method does not support the HLA gene or the resolution.

		ALPHLARD	OptiType	PHLAT	HLA-VBSeq
HLA-A	1st	100% (25/25)	100% (25/25)	64.0% (16/25)	92.0% (23/25)
	2nd	96.0% (24/25)	96.0% (24/25)	36.0% (9/25)	72.0% (18/25)
	3rd	96.0% (24/25)	N/A	20.0% (5/25)	72.0% (18/25)
HLA-B	1st	100% (24/24)	79.2% (19/24)	66.7% (16/24)	79.2% (19/24)
	2nd	100% (24/24)	75.0% (18/24)	45.8% (11/24)	54.2% (13/24)
	3rd	91.7% (22/24)	N/A	25.0% (6/24)	50.0% (12/24)
HLA-C	1st	100% (25/25)	100% (25/25)	76.0% (19/25)	92.0% (23/25)
	2nd	96.0% (24/25)	92.0% (23/25)	44.0% (11/25)	40.0% (10/25)
	3rd	96.0% (24/25)	N/A	28.0% (7/25)	40.0% (10/25)
HLA-DPA1	1st	100% (12/12)	N/A	N/A	75.0% (9/12)
	2nd	100% (12/12)	N/A	N/A	75.0% (9/12)
	3rd	100% (12/12)	N/A	N/A	75.0% (9/12)
HLA-DPB1	1st	100% (11/11)	N/A	N/A	81.8% (9/11)
	2nd	100% (11/11)	N/A	N/A	81.8% (9/11)
	3rd	100% (11/11)	N/A	N/A	81.8% (9/11)
HLA-DQA1	1st	100% (12/12)	N/A	66.7% (8/12)	100% (12/12)
	2nd	91.7% (11/12)	N/A	50.0% (6/12)	91.7% (11/12)
	3rd	91.7% (11/12)	N/A	50.0% (6/12)	91.7% (11/12)
HLA-DQB1	1st	100% (9/9)	N/A	77.8% (7/9)	100% (9/9)
	2nd	88.9% (8/9)	N/A	44.4% (4/9)	77.8% (7/9)
	3rd	88.9% (8/9)	N/A	33.3% (3/9)	77.8% (7/9)
HLA-DRB1	1st	100% (12/12)	N/A	58.3% (7/12)	91.7% (11/12)
	2nd	100% (12/12)	N/A	33.3% (4/12)	41.7% (5/12)
	3rd	100% (12/12)	N/A	33.3% (4/12)	41.7% (5/12)
Total	1st	100% (130/130)	93.2% (69/74)	68.2% (73/107)	88.5% (115/130)
	2nd	96.9% (126/130)	87.8% (65/74)	42.1% (45/107)	63.1% (82/130)
	3rd	95.4% (124/130)	N/A	29.0% (31/107)	62.3% (81/130)