

MHC II Automated Server Benchmarks

This is a [live](#) ranking of MHC II servers based on performance, which continues to be reevaluated over time. The weekly IEDB releases are automatically checked for datasets large enough to add to the benchmarks. The benchmark metrics in the table below will only be updated on releases where such new data is becoming available.

Accumulated overall ranking scores

[Ranking scores](#) based on data sets submitted to the IEDB for the last at least 5 references.

Server	2023-11-10	2023-09-01	2023-07-28	2023-04-21	2023-03-03	2023-01-27	2022-10-28	2022-09-16	2022-09-02	2022-06-17	2022-06-10	2022-04-08	2022-04-01	2021-12-10	2021-11-05	2021-10-29	2021-07-23	2021-04-23	2021-04-16	2021-02-19	2021-01-22	2020-12-18	2020-10-30	2020-10-23	2020-08-07	2020-06-26	2020-05-01	2020-03-27	2020-03-16	2020-01-03	2019-07-02	2019-05-24	2019-03-22	2018-11-23	2017-12-29	2017-11-24	2017-08-18	2017-06-30	2017-04-28	2017-04-11	2016-12-31	
NetMHCIIpan-4.1 BA	80	85	82	70	71	70	70	76	65	65	65	65	65	67	66	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NetMHCIIpan-4.0 BA	73	76	78	68	70	68	68	70	65	66	66	63	63	63	62	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NetMHCIIpan-3.2	68	67	67	64	65	64	63	52	51	51	50	61	63	69	70	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NetMHCIIpan-3.1	61	53	54	66	56	54	55	41	47	47	41	46	46	48	50	54	58	57	58	55	58	46	49	60	61	60	64	55	64	65	65	71	84	79	76	78	73	73	93	86	81	
NN-align 2.3	58	56	59	51	49	49	48	45	63	64	67	67	67	65	67	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Consensus IEDB method	53	50	58	58	59	59	61	57	66	66	68	65	66	63	62	63	66	66	71	73	69	73	76	62	60	60	58	58	61	64	66	64	64	64	61	58	57	57	42	50	52	
NN-align	44	38	42	44	43	43	42	43	58	58	57	57	59	55	56	57	68	64	73	73	75	59	60	73	74	78	79	88	75	71	71	66	54	63	65	65	69	69	79	75	65	
SMM-align	40	43	42	50	50	47	48	42	55	56	52	50	47	50	51	53	49	51	43	43	43	57	61	57	57	54	56	38	41	43	39	43	49	35	31	34	36	36	44	49	45	
NetMHCIIpan-4.1 EL	38	45	39	51	54	57	57	54	32	32	33	36	36	38	36	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tepitope (Sturniolo)	30	26	30	39	39	41	41	37	31	27	41	36	37	41	39	29	21	24	17	18	14	21	29	27	25	27	26	33	28	26	26	29	21	47	53	53	52	52	6	8	25	
Comblib matrices	24	20	14	7	4	4	4	13	17	17	15	18	16	16	16	17	10	11	8	8	7	30	38	25	25	21	10	0	0	5	5	5	10	4	0	0	0	0	13	6	14	
NetMHCIIpan-4.0 EL	22	27	24	47	47	50	51	48	31	31	29	34	33	37	34	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Weekly ranking scores

[Ranking scores](#) based on data sets submitted to the IEDB within a single week.

Server	2023-11-10	2023-09-01	2023-07-28	2023-04-21	2023-03-03	2023-01-27	2022-10-28	2022-09-16	2022-09-02	2022-06-17	2022-06-10	2022-04-08	2022-04-01	2021-12-10	2021-11-05	2021-10-29	2021-07-23	2021-04-23	2021-04-16	2021-02-19	2021-01-22	2020-12-18	2020-10-30	2020-10-23	2020-08-07	2020-06-26	2020-05-01	2020-03-27	2020-03-16	2020-01-03	2019-07-02	2019-05-24	2019-03-22	2018-11-23	2017-12-29	2017-11-24	2017-08-18	2017-06-30	2017-04-28	2017-04-11	2016-12-31
NetMHCIIpan-4.1 BA	70	41	89	70	100	100	66	75	85	75	94	55	62	89	67	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NetMHCIIpan-4.0 BA	63	50	83	45	90	90	69	66	55	80	94	82	62	83	66	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NetMHCIIpan-3.2	76	59	75	35	60	75	67	58	35	70	67	0	53	28	52	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NetMHCIIpan-3.1	88	32	47	80	80	55	65	31	25	90	50	64	44	22	31	53	63	49	100	-	61	50	41	-	100	0	61	88	75	-	25	51	83	90	67	100	-	75	-	63	81
NN-align 2.3	55	50	59	100	25	25	51	52	15	10	56	59	71	28	68	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Consensus IEDB method	58	5	59	50	40	30	61	61	30	75	50	50	69	28	77	60	63	61	25	85	68	50	88	-	38	90	62	25	50	-	75	64	57	90	83	50	-	60	-	38	52
NN-align	60	73	37	0	50	40	47	32	55	25	56	95	58	44	49	58	100	44	75	54	84	50	69	-	38	60	77	88	100	-	100	83	53	60	67	40	-	69	-	75	65
SMM-align	33	55	41	20	70	45	51	43	0	80	17	68	59	17	42	44	13	78	50	52	33	50	63	-	75	30	58	63	25	-	50	34	53	40	0	90	-	26	-	100	45
NetMHCIIpan-4.1 EL	5	91	44	70	0	10	54	65	85	10	17	23	32	94	31	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tepitope (Sturniolo)	46	64	20	10	25	50	42	34	70	45	-	9	27	-	67	27	25	38	0	27	10	50	7	-	0	30	29	0	-	-	-	40	15	10	-	60	-	52	-	-	25
Comblib matrices	32	5	26	-	-	-	7	0	-	-	-	50	13	-	5	24	0	12	-	13	10	-	0	-	-	90	12	-	0	-	0	0	-	20	-	0	-	0	-	0	14
NetMHCIIpan-4.0 EL	5	77	17	55	10	30	49	50	100	35	0	45	28	100	25	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Download initial benchmark datasets

Click [here](#) to download the initial benchmark datasets.

Benchmark results get recalculated as new servers are added to the benchmarks. Numbers in light grey represent scores on datasets before the server was incorporated into the benchmarks. Previous versions of the benchmark results can be downloaded below

- [2023-09-19](#)