

Online Supplement to: An iron stable isotope comparison between human erythrocytes and plasma

Table S3. Measured Fe concentration and isotope data on blood plasma

Subject	Fe conc [ppm]	Fe isotope ratios relative to IRMM-014								Relative isotope abundances				molar weight [g/mol]				
		$\delta^{56/54}\text{Fe}$	2SE ¹	$\delta^{57/54}\text{Fe}$	2SE ¹	$\delta^{58/54}\text{Fe}$	2SE ¹	$\delta^{58/56}\text{Fe}$	2SE ¹	$^{56}\text{Fe}/^{54}\text{Fe}$	$^{57}\text{Fe}/^{54}\text{Fe}$	$^{58}\text{Fe}/^{54}\text{Fe}$	$^{58}\text{Fe}/^{56}\text{Fe}$					
5101-201 baseline	0.96																	
5101-202	1.29	-2.429	0.032	-2.355	0.058	2448.67	0.85	2457.07	0.87	15.65974	0.36171	0.16627	0.01062	0.05818	0.91110	0.02104	0.00967	55.85924
5101-203	1.43	-2.528	0.031	-1.992	0.053	3523.00	1.11	3534.47	1.12	15.65817	0.36184	0.21806	0.01393	0.05801	0.90835	0.02099	0.01265	55.86547
5101-204	1.02	-2.385	0.038	-2.116	0.065	2816.08	0.92	2825.21	0.90	15.66043	0.36180	0.18398	0.01175	0.05812	0.91016	0.02103	0.01069	55.86138
5101-205	0.67	-2.269	0.035	-2.654	0.064	1402.93	0.73	1408.39	0.72	15.66225	0.36160	0.11585	0.00740	0.05834	0.91380	0.02110	0.00676	55.85314
5101-206	0.67	⁴ (-1.711)	0.036	-2.232	0.057	543.304	0.325	545.950	0.311)	⁴	⁴	⁴	⁴	⁴	⁴	⁴	⁴	⁴
5101-206 - P	-	-1.945	0.023	-2.577	0.048	-	-	-	-	15.66732	0.36163	-	-	-	-	-	-	-
Average ⁵	1.01		H(annover)	P(otsdam)														
2SD	0.63		-2.31	-1.95														
n	6		5	1														
5102-201 baseline	0.65																	
5102-202	0.68	-2.118	0.032	-2.675	0.055	891.72	0.36	895.73	0.35	15.66462	0.36160	0.09120	0.00582	0.05842	0.91513	0.02112	0.00533	55.85016
5102-202 - P ²	-	-2.387	0.020	-3.074	0.040	-	-	-	-	15.66039	0.36145	-	-	-	-	-	-	-
5102-203	0.75	-2.302	0.033	-2.445	0.060	1921.51	0.45	1928.25	0.44	15.66173	0.36168	0.14085	0.00899	0.05826	0.91246	0.02107	0.00821	55.85617
5102-204	0.53	-2.290	0.035	-2.878	0.067	955.64	0.59	960.13	0.59	15.66191	0.36152	0.09429	0.00602	0.05842	0.91495	0.02112	0.00551	55.85051
5102-205	0.43	-2.090	0.043	-2.820	0.086	509.93	0.40	513.09	0.39	15.66506	0.36154	0.07280	0.00465	0.05848	0.91612	0.02114	0.00426	55.84791
5102-205 - P ²	-	-2.325	0.020	-3.160	0.060	-	-	-	-	15.66136	0.36142	-	-	-	-	-	-	-
5102-206	0.48	⁴ (-1.321)	0.060	-1.839	0.094	270.986	0.276	272.667	0.253)	⁴	⁴	⁴	⁴	⁴	⁴	⁴	⁴	⁴
5102-206 - P	-	-2.261	0.029	-3.170	0.051	-	-	-	-	15.66236	0.36142	-	-	-	-	-	-	-
Average ⁵	0.59		H	P														
2SD	0.25		-2.20	-2.32														
n	6		4	3														
5103-201 baseline	1.29	-2.134	0.030	-3.139	0.059	-3.92	0.22	-1.79	0.23	15.66436	0.36143	0.04802	0.00307	0.05857	0.91745	0.02117	0.00281	55.84488
5103-201 - P ²	-	-2.249	0.030	-3.319	0.045	-	-	-	-	15.66256	0.36136	-	-	-	-	-	-	-
5103-202	1.91	-2.337	0.032	-2.540	0.049	1919.51	0.50	1926.34	0.50	15.66117	0.36165	0.14076	0.00899	0.05826	0.91247	0.02107	0.00820	55.85616
5103-203	1.81	-2.404	0.031	-2.340	0.053	2448.66	0.52	2456.98	0.53	15.66012	0.36172	0.16627	0.01062	0.05818	0.91110	0.02104	0.00967	55.85924
5103-204	1.19	-2.406	0.040	-2.637	0.055	1863.01	0.50	1869.92	0.48	15.66009	0.36161	0.13803	0.00881	0.05828	0.91261	0.02107	0.00804	55.85582
5103-205	0.63	-2.188	0.036	-2.699	0.051	1053.20	0.37	1057.71	0.37	15.66352	0.36159	0.09899	0.00632	0.05840	0.91471	0.02112	0.00578	55.85110
5103-205 - P ²	-	-2.545	0.022	-3.214	0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
5103-206	0.45	-2.329	0.022	-3.263	0.033	402.43	0.27	405.70	0.26	15.66129	0.36138	0.06761	0.00432	0.05851	0.91639	0.02115	0.00396	55.84725
Average ⁵	1.21		H	P														
2SD	1.19		-2.30	-2.40														
n	6		6	2														
5104-201 baseline	1.10	-2.798	0.019	-4.134	0.036	-5.67	0.22	-2.88	0.22	15.65395	0.36107	0.04794	0.00306	0.05861	0.91742	0.02116	0.00281	55.84479
5104-202	0.83	-2.839	0.020	-3.509	0.040	1419.78	0.44	1426.67	0.44	15.65329	0.36129	0.11666	0.00745	0.05837	0.91373	0.02109	0.00681	55.85318
5104-203	0.63	-2.831	0.018	-3.382	0.033	1559.06	0.44	1566.32	0.45	15.65342	0.36134	0.12338	0.00788	0.05835	0.91337	0.02108	0.00720	55.85400
5104-204	0.69																	
5104-205	0.43	-2.661	0.021	-3.790	0.039	271.43	0.28	274.83	0.28	15.65609	0.36119	0.06130	0.00392	0.05855	0.91671	0.02115	0.00359	55.84644
5104-206	0.53	-2.744	0.025	-3.893	0.042	255.27	0.26	258.73	0.26	15.65478	0.36115	0.06052	0.00387	0.05856	0.91675	0.02115	0.00354	55.84634
Average	0.70		H	P														
2SD	0.48		-2.77	NA														
n	6		5	0														
5105-201 baseline	1.59																	
5105-202	1.10	-2.458	0.017	-3.263	0.044	720.42	0.26	724.66	0.27	15.65927	0.36138	0.08295	0.00530	0.05847	0.91555	0.02113	0.00485	55.84911
5105-203	0.70	-2.592	0.018	-2.913	0.033	1800.25	0.41	1807.52	0.41	15.65717	0.36151	0.13501	0.00862	0.05830	0.91276	0.02107	0.00787	55.85543
5105-204	0.35	-2.410	0.021	-3.201	0.051	749.15	0.35	753.38	0.34	15.66003	0.36141	0.08433	0.00539	0.05846	0.91548	0.02113	0.00493	55.84928
5105-205	0.37	-2.383	0.019	-3.350	0.032	361.68	0.24	364.93	0.24	15.66046	0.36135	0.06565	0.00419	0.05852	0.91649	0.02115	0.00384	55.84700
5105-206	0.54	-2.417	0.024	-3.427	0.039	235.14	0.30	238.13	0.30	15.65992	0.36132	0.05955	0.00380	0.05855	0.91681	0.02115	0.00349	55.84626

		<i>H</i>	<i>P</i>															
Average	0.77	-2.45	NA															
2SD	0.97	0.17	NA															
	6	5	0															
5106-201 <i>baseline</i>	0.88	-2.572	0.018	-3.769	0.034	-4.898	0.213	-2.332	0.213	15.65749	0.36120	0.04798	0.00306	0.05859	0.91743	0.02116	0.00281	55.84482
5106-202	0.83	-2.560	0.021	-3.445	0.035	592.847	0.360	596.934	0.361	15.65768	0.36132	0.07679	0.00490	0.05849	0.91588	0.02113	0.00449	55.84835
5106-203	0.76	-2.646	0.022	-3.640	0.034	459.146	0.282	463.017	0.285	15.65633	0.36125	0.07035	0.00449	0.05852	0.91622	0.02114	0.00412	55.84755
5106-204	0.49	-2.520	0.019	-3.586	0.028	291.386	0.286	294.648	0.285	15.65830	0.36127	0.06226	0.00398	0.05854	0.91666	0.02115	0.00364	55.84657
5106-205	0.48	-2.512	0.027	-3.673	0.043	101.362	0.237	104.136	0.231	15.65843	0.36123	0.05310	0.00339	0.05857	0.91716	0.02116	0.00311	55.84545
5106-206	0.55	-2.544	0.025	-3.669	0.038	102.758	0.256	105.571	0.245	15.65792	0.36124	0.05317	0.00340	0.05857	0.91715	0.02116	0.00311	55.84546

		<i>H</i>	<i>P</i>														
Average	0.66	-2.56	NA														
2SD	0.36	0.10	NA														
	6	6	0														

5107-201 <i>baseline</i>	0.96	-2.394	0.019	-3.486	0.043	-4.48	0.28	-2.09	0.28	15.66029	0.36130	0.04800	0.00306	0.05858	0.91744	0.02117	0.00281	55.84484
5107-201 - <i>P</i> ²	-	-2.428	0.032	-3.596	0.043	-	-	-	-	15.65974	0.36126	-	-	-	-	-	-	-
5107-202	1.17	-	3	-	3	-	3	-	3	3	3	3	3	3	3	3	3	3
5107-203	1.35	-2.669	0.030	-2.878	0.046	2186.12	0.88	2194.65	0.86	15.65596	0.36152	0.15361	0.00981	0.05824	0.91176	0.02105	0.00895	55.85768
5107-204	0.88	-2.521	0.031	-3.088	0.047	1279.77	0.58	1285.53	0.56	15.65828	0.36145	0.10991	0.00702	0.05838	0.91410	0.02110	0.00642	55.85239
5107-205	0.64	-2.021	0.035	-2.736	0.048	422.05	0.53	424.94	0.52	15.66613	0.36157	0.06856	0.00438	0.05849	0.91635	0.02115	0.00401	55.84740
5107-206	0.50	-2.316	0.031	-3.365	0.055	221.62	0.40	224.45	0.39	15.66150	0.36135	0.05890	0.00376	0.05854	0.91686	0.02115	0.00345	55.84619
5107-206 - <i>P</i> ²	-	-2.740	0.029	-3.882	0.040	-	-	-	-	15.65485	0.36116	-	-	-	-	-	-	-

		<i>H</i>	<i>P</i>														
Average ⁵	0.92	-2.38	-2.58														
2SD	0.64	0.49	NA														
	6	5	2														

5108-201 <i>baseline</i>	0.79	-2.433	0.034	-3.595	0.056	-5.14	0.36	-2.71	0.37	15.65967	0.36126	0.04796	0.00306	0.05859	0.91744	0.02116	0.00281	55.84483
5108-201 - <i>P</i> ²	-	-2.685	0.023	-3.972	0.046	-	-	-	-	15.65571	0.36113	-	-	-	-	-	-	-
5108-202	0.79	-2.271	0.036	-3.124	0.056	480.30	0.53	483.67	0.52	15.66220	0.36143	0.07137	0.00456	0.05850	0.91619	0.02114	0.00417	55.84772
5108-202 - <i>P</i> ²	-	-2.579	0.022	-3.540	0.032	-	-	-	-	15.65738	0.36128	-	-	-	-	-	-	-
5108-203	0.69	-2.379	0.024	-3.041	0.054	857.658	0.604	862.088	0.593	15.66052	0.36146	0.08956	0.00572	0.05844	0.91520	0.02112	0.00523	55.84993
5108-203 - <i>P</i> ²	-	-2.611	0.034	-3.426	0.050	-	-	-	-	15.65687	0.36132	-	-	-	-	-	-	-
5108-204	0.75	-2.275	0.041	-2.735	0.076	316.84	0.55	319.85	0.54	15.66216	0.36157	0.06349	0.00405	0.05852	0.91660	0.02116	0.00372	55.84676
5108-205	0.51	-2.259	0.083	-3.055	0.157	689.94	1.48	693.77	1.47	15.66240	0.36146	0.08148	0.00520	0.05846	0.91564	0.02113	0.00476	55.84895
5108-205 - <i>P</i> ²	-	-2.555	0.024	-3.403	0.038	-	-	-	-	15.65775	0.36133	-	-	-	-	-	-	-
5108-206	0.44	-2.101	0.030	-2.923	0.058	299.28	0.42	302.02	0.41	15.66488	0.36151	0.06264	0.00400	0.05852	0.91666	0.02115	0.00367	55.84667

		<i>H</i>	<i>P</i>														
Average ⁵	0.66	-2.29	-2.61														
2SD	0.31	0.23	0.11														
	6	6	4														

5109-201 <i>baseline</i>	1.05	-2.915	0.035	-4.305	0.065	-5.43	0.44	-2.52	0.45	15.65211	0.36101	0.04795	0.00306	0.05861	0.91742	0.02116	0.00281	55.84478
5109-202	1.06	-2.827	0.028	-3.984	0.065	294.40	0.38	298.06	0.39	15.65349	0.36112	0.06241	0.00399	0.05856	0.91664	0.02115	0.00365	55.84656
5109-203	0.77	-2.800	0.027	-3.719	0.056	713.89	0.61	718.70	0.61	15.65391	0.36122	0.08263	0.00528	0.05849	0.91555	0.02113	0.00483	55.84903
5109-204	0.48	-2.664	0.036	-3.693	0.076	439.33	0.51	443.18	0.51	15.65604	0.36123	0.06939	0.00443	0.05853	0.91627	0.02114	0.00406	55.84743
5109-204 - <i>P</i> ²	-	-2.954	0.032	-4.119	0.057	-	-	-	-	15.65149	0.36107	-	-	-	-	-	-	-
5109-205	0.40	-2.514	0.039	-3.501	0.068	388.95	0.60	392.45	0.61	15.65840	0.36130	0.06696	0.00428	0.05853	0.91641	0.02114	0.00392	55.84715
5109-206	0.51	-2.646	0.037	-3.839	0.077	174.09	0.41	177.20	0.40	15.65632	0.36117	0.05661	0.00362	0.05857	0.91696	0.02115	0.00332	55.84587
5109-206 - <i>P</i> ²	-	-2.954	0.028	-4.237	0.041	-	-	-	-	15.65149	0.36103	-	-	-	-	-	-	-

		<i>H</i>	<i>P</i>														
Average ⁵	0.71	-2.73	-2.95														
2SD	0.59	0.29	NA														
	6	6	2														

5110-201 <i>baseline</i>	1.34	-2.593	0.030	-3.782	0.060	-4.77	0.49	-2.18	0.49	15.65715	0.36120	0.04798	0.00306	0.05859	0.91743	0.02116	0.00281	55.84482
5110-202	1.17	-2.641	0.038	-3.241	0.061	1351.74	0.79	1357.97	0.79	15.65641	0.36139	0.11338	0.00724	0.05837	0.91391	0.02110	0.00662	55.85280
5110-203	1.14	-2.660	0.031	-3.312	0.052	1242.98	0.75	1248.96	0.73	15.65611	0.36137	0.10814	0.00691	0.05839	0.91419	0.02110	0.00631	55.85216
5110-204	0.90	-2.467	0.035	-3.183	0.060	914.23	0.62	918.96	0.61	15.65914	0.36141	0.09229	0.00589	0.05844	0.91505	0.02112	0.00539	55.85025

5110-205	0.68	-2.323	0.035	-3.068	0.062	606.83	0.65	610.57	0.64	15.66140	0.36145	0.07747	0.00495	0.05848	0.91585	0.02114	0.00453	55.84846
5110-206	0.90	-2.504	0.034	-3.511	0.058	336.50	0.56	339.85	0.56	15.65855	0.36129	0.06444	0.00412	0.05853	0.91655	0.02115	0.00377	55.84684

Average	1.02	H	P															
2SD	0.48	-2.53	NA															
	6	6	0															

5111-201 <i>baseline</i>	0.90	-2.671	0.032	-3.930	0.053	-5.33	0.37	-2.66	0.36	15.65593	0.36114	0.04796	0.00306	0.05860	0.91743	0.02116	0.00281	55.84480
5111-201 - P ²	-	-2.916	0.026	-4.279	0.044	-	-	-	-	15.65208	0.36101	-	-	-	-	-	-	-
5111-202	0.80	-2.626	0.034	-3.638	0.047	383.51	0.53	387.15	0.53	15.65665	0.36125	0.06670	0.00426	0.05853	0.91642	0.02114	0.00390	55.84711
5111-202 - P ²	-	-2.879	0.028	-4.054	0.040	-	-	-	-	15.65267	0.36110	-	-	-	-	-	-	-
5111-203	0.62		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
5111-204	0.48	-2.450	0.040	-3.408	0.054	461.84	0.56	465.43	0.56	15.65941	0.36133	0.07048	0.00450	0.05851	0.91623	0.02114	0.00412	55.84759
5111-205	0.68	-2.535	0.029	-3.641	0.052	189.41	0.49	192.43	0.49	15.65806	0.36125	0.05734	0.00366	0.05856	0.91693	0.02115	0.00336	55.84597
5111-205 - P ²	-	-2.771	0.033	-3.925	0.043	-	-	-	-	-	-	-	-	-	-	-	-	-
5111-206	0.78	-2.639	0.030	-3.804	0.052	122.77	0.41	125.74	0.41	15.65643	0.36119	0.05413	0.00346	0.05858	0.91710	0.02116	0.00317	55.84557
5111-206 - P ²	-	-2.968	0.029	-4.297	0.058	-	-	-	-	-	-	-	-	-	-	-	-	-

Average⁵	0.71	H	P															
2SD	0.30	-2.58	-2.88															
	6	5	4															

5112-201 <i>baseline</i>	0.81	-2.036	0.035	-3.085	0.044	-4.42	0.45	-2.39	0.46	15.66591	0.36145	0.04800	0.00306	0.05856	0.91746	0.02117	0.00281	55.84488
5112-202	0.97		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
5112-203	0.82	-2.043	0.038	-2.641	0.066	1151.69	0.66	1156.10	0.67	15.66580	0.36161	0.10374	0.00662	0.05837	0.91446	0.02111	0.00606	55.85169
5112-204	0.58		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
5112-205	0.54	-2.121	0.029	-2.938	0.078	249.38	0.48	252.04	0.50	15.66457	0.36150	0.06024	0.00385	0.05853	0.91679	0.02116	0.00353	55.84637
5112-206	0.56		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Average	0.71	H	P															
2SD	0.35	-2.07	NA															
	6	3	0															

- 1: 2 Sigma internal mass spectrometric error
- 2: Duplicate sample
- 3: Where cell is empty, sample was lost during analysis or failed the acceptance criteria
- 4: Samples in parentheses and printed in italics are considered outliers as they deviate more than 25% from the remaining plasma samples
- 5: For calculation of averages both results of duplicate analyses were used
- P: ⁵⁶Fe/⁵⁴Fe and ⁵⁷Fe/⁵⁴Fe ratios remeasured at GFZ Potsdam.
- H: ⁵⁶Fe/⁵⁴Fe and ⁵⁷Fe/⁵⁴Fe ratios remeasured at GFZ Hannover
- n.d. The ⁵⁸Fe/⁵⁴Fe ratio was not determined at GFZ Potsdam
- NA: not applicable

See Gschwind et al. submitted for clinical subject data