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(54) Title: ANTI-PNEUMOCOCCAL HYPERIMMUNE GLOBULIN FOR THE TREATMENT AND PREVENTION OF PNEUMOCOCCAL INFECTION

FIG. 1

Pneumococcal serotype specific IgG Concentrations in individual donor sera drawn at different time points

Donor ID	Time Point	Sample ID	Serotype specific IgG concentration (µg/mL)											
			1	3	4	5	6B	7F	9V	14	18C	19A	19F	23F
Donor #34440	Pre	1010183980	2.14	0.13	0.19	0.57	0.15	0.81	0.04	0.65	0.57	0.25	1.10	1.29
	Week 4	1010187977	1086.8	2.12	28.50	3.24	4.56	12.82	10.27	0.56	10.12	23.76	166.82	56.74
	Week 8	1010191870	683.56	1.04	18.37	1.72	2.57	8.75	7.14	0.39	5.55	14.62	99.79	35.07
	Week 10	1010193841	894.33	2.85	27.24	2.74	2.80	12.26	8.92	0.66	7.88	18.69	118.51	51.77
	Week 12	1010195848	814.20	2.30	22.37	2.58	2.60	12.29	8.07	0.65	7.30	16.70	143.87	45.81
Donor #7942	Pre	1010199412	632.08	1.90	19.35	2.32	2.21	10.83	6.47	0.81	6.71	15.16	103.09	39.97
	Pre	1010184203	0.52	0.32	<LOD	0.39	0.24	0.14	0.03	<LOD	<LOD	0.18	<LOD	0.36
	Week 4	1010187944	36.04	15.06	5.49	2.54	0.28	4.95	9.76	3.14	23.07	3.40	0.17	1.43
	Week 8	1010191587	33.01	10.17	3.92	2.35	0.27	2.85	8.91	3.23	19.45	2.11	0.24	1.63
	Week 10	1010193786	31.43	10.72	6.50	2.78	0.49	2.66	7.64	3.29	15.90	5.54	0.35	1.57
Donor #20003	Week 12	1010195777	26.03	8.66	5.42	2.82	0.48	2.22	6.99	3.18	14.71	6.26	0.30	1.62
	Week 16	1010200569	18.36	5.78	3.98	2.72	0.56	1.69	5.70	2.96	11.31	6.72	0.54	1.83
	Pre	1010184756	0.44	1.00	<LOD	13.52	3.90	1.26	0.68	2.38	1.17	6.54	17.69	2.85
	Week 4	1010188381	0.72	3.12	1.16	90.54	10.40	16.61	0.93	5.47	39.95	8.65	23.85	8.03
	Week 8	1010192000	0.76	2.48	1.06	84.87	8.83	9.42	0.78	4.34	27.09	9.24	23.12	7.03
Donor #1892	Week 10	1010193932	1.05	3.18	1.85	216.25	8.50	8.98	1.04	4.13	30.70	8.41	17.11	7.26
	Week 12	1010195963	1.08	2.49	1.49	251.97	6.82	5.63	0.99	3.37	20.26	6.96	14.72	5.80
	Week 16	1010200033	1.03	2.34	1.24	268.43	6.96	3.93	1.05	3.18	14.30	6.92	13.96	4.38
	Pre	1010184804	0.13	<LOD	<LOD	0.19	<LOD	0.04	<LOD	<LOD	<LOD	<LOD	0.06	<LOD
	Week 4	1010188291	22.30	1.98	0.59	0.52	0.37	41.00	1.25	0.49	18.30	3.92	1.50	1.98
Donor #1892	Week 8	1010192199	9.75	0.93	0.21	0.50	0.10	19.40	0.59	0.15	6.91	2.52	0.37	1.27

(57) Abstract: The present invention relates to compositions and methods for the treatment of infection caused by Streptococcus pneumonia. In particular, the invention provides human hyperimmune globulin and compositions thereof for preventing or treating pneumococcal infection. The invention provides methods of producing hyperimmune globulin containing high titers of opsonophagocytic anti-pneumococcal antibodies, compositions containing same, and methods of using the compositions for the prevention and treatment of pneumococcal infection. The invention further provides methods of preventing or treating pneumococcal infection (e.g., upper respiratory infections (e.g., bronchitis, otitis, sinusitis, etc.)) in immunocompromised subjects via administration of hyperimmune globulin compositions of the invention (e.g., containing a high titer of opsonophagocytic anti-pneumococcal antibodies) to immunocompromised subjects.

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