QUANSYS BIOSCIENCES

Measure IgG Responses Across 23 Pneumococcal Serotypes

Choose the Panel That Fits Your Research

Pneumococcal vaccine research and immune response studies often require researchers to measure IgG antibodies against multiple serotypes. Measuring each target separately can consume more sample and require additional wells, plates, and processing time.

The Q-Plex™ Human Pneumococcal IgG (14-Plex) and Q-Plex™ Human Pneumococcal IgG (9-Plex) provide flexible options for measuring serotype-specific IgG antibodies using multiplex ELISA. Each panel can be used independently based on the serotypes relevant to your research, or the two panels can be used together to evaluate all 23 serotypes.

Why Choose Q-Plex™ Multiplexing

- **Conserve Valuable Sample**
  Measure multiple serotype-specific IgG responses from each serum sample.
- **Consolidate Your Testing**
  Measure multiple antibody targets simultaneously in each well, reducing the number of wells, plates, and processing steps required.
- **Generate Quantitative Results**
  Evaluate antibody levels using calibration curves and serotype-specific performance parameters.
- **Select the Serotypes You Need**
  Choose the Q-Plex™ Human Pneumococcal IgG (14-Plex), the Q-Plex™ Human Pneumococcal IgG (9-Plex), or both based on the objectives of your study.



Flexible Serotype Coverage

Q-Plex™ Human Pneumococcal IgG (14-Plex)

Catalog Number: 482249HU

Quantitatively measures IgG antibodies recognizing 14 pneumococcal serotypes:
1, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 12F, 14, 18C, 19F, and 23F

Example Performance and Validation Data

Sterotype	Assay Type	Calibrator Range	Effective Range High (DF 1:50)	Upper Limit of Quantification (ULOQ)	Lower Limit of Quantification (LLOQ)	Precision* (Inter-assay)	Precision* (Intra-assay)	Average Linearity (R2 Value)	Linearity Range Tested	Vaccines
1	Indirect	0.85 – 0.00021 (µg /mL)	42.50 – 0.011 (µg /mL)	0.74 (µg /mL)	0.00039 (µg /mL)	10.7%	11.4%	0.93	4.49 – 0.10 (µg /mL)	PCV10, PCV13, PCV15, PCV20, PPSV23
3	Indirect	0.15 – 0.000037 (µg /mL)	7.50 – 0.0019 (µg /mL)	0.12 (µg /mL)	0.00012 (µg /mL)	12.6%	10.1%	0.93	0.82 – 0.066 (µg /mL)	PCV13, PCV15, PCV20, PCV21, PPSV23
4	Indirect	0.33 – 0.000081 (µg /mL)	16.50 – 0.0041 (µg /mL)	0.30 (µg /mL)	0.00017 (µg /mL)	18.0%	10.0%	0.97	1.89 – 0.015 (µg /mL)	PCV7, PCV10, PCV13, PCV15, PCV20, PPSV23
5	Indirect	0.75 – 0.00018 (µg /mL)	37.50 – 0.0090 (µg /mL)	0.73 (µg /mL)	0.00055 (µg /mL)	12.9%	9.3%	0.95	4.42 – 0.019 (µg /mL)	PCV10, PCV13, PCV15, PCV20, PPSV23
6B	Indirect	0.91 – 0.00022 (µg /mL)	45.50 – 0.011 (µg /mL)	0.84 (µg /mL)	0.00072 (µg /mL)	14.4%	9.5%	0.92	5.52 – 0.089 (µg /mL)	PCV7, PCV10, PCV13, PCV15, PCV20, PPSV23
7F	Indirect	0.83 – 0.00020 (µg /mL)	41.50 – 0.010 (µg /mL)	0.19 (µg /mL)	0.00019 (µg /mL)	14.4%	6.3%	0.89	5.04 – 0.15 (µg /mL)	PCV10, PCV13, PCV15, PCV20, PCV21, PPSV23
8	Indirect	1.42 – 0.00035 (µg /mL)	71.00 – 0.018 (µg /mL)	1.31 (µg /mL)	0.0011 (µg /mL)	12.5%	11.2%	0.92	11.98 – 0.10 (µg /mL)	PCV20, PCV21, PPSV23
9N	Indirect	0.70 – 0.00017 (µg /mL)	35.00 – 0.0085 (µg /mL)	0.68 (µg /mL)	0.00066 (µg /mL)	16.6%	13.2%	0.92	5.80 – 0.039 (µg /mL)	PCV21, PPSV23
9V	Indirect	0.64 – 0.00016 (µg /mL)	32.00 – 0.0080 (µg /mL)	0.55 (µg /mL)	0.00016 (µg /mL)	14.0%	8.3%	0.93	3.89 – 0.085 (µg /mL)	PCV7, PCV10, PCV13, PCV15, PCV20, PPSV23
12F	Indirect	0.22 – 0.000054 (µg /mL)	11.00 – 0.0027 (µg /mL)	0.20 (µg /mL)	0.00017 (µg /mL)	13.2%	13.5%	0.96	1.11 – 0.0089 (µg /mL)	PCV20, PCV21, PPSV23
14	Indirect	3.80 – 0.00093 (µg /mL)	190 – 0.047 (µg /mL)	0.96 (µg /mL)	0.00087 (µg /mL)	12.3%	9.7%	0.89	34.59 – 0.21 (µg /mL)	PCV7, PCV10, PCV13, PCV15, PCV20, PPSV23
18C	Indirect	0.73 – 0.00018 (µg /mL)	36.50 – 0.0090 (µg /mL)	0.67 (µg /mL)	0.00016 (µg /mL)	11.2%	7.1%	0.91	4.49 – 0.042 (µg /mL)	PCV7, PCV10, PCV13, PCV15, PCV20, PPSV23
19F	Indirect	1.46 – 0.00036 (µg /mL)	73.00 – 0.018 (µg /mL)	1.24 (µg /mL)	0.0013 (µg /mL)	11.1%	14.8%	0.89	8.31 – 0.21 (µg /mL)	PCV7, PCV10, PCV13, PCV15, PCV20, PPSV23
23F	Indirect	0.60 – 0.00016 (µg /mL)	30.00 – 0.0080 (µg /mL)	0.51 (µg /mL)	0.00056 (µg /mL)	13.7%	16.8%	0.88	5.51 – 0.031 (µg /mL)	PCV7, PCV10, PCV13, PCV15, PCV20, PPSV23

**Intra-assay and inter-assay precision are calculated with n=20 and n=10 replicates, respectively.*

Q-Plex™ Human Pneumococcal IgG (9-Plex)

Catalog Number: 482149HU

Quantitatively measures IgG antibodies recognizing 9 pneumococcal serotypes: 2, 10A, 11A, 15B, 17F, 19A, 20, 22F, and 33F

Example Performance and Validation Data

Sterotype	Assay Type	Calibrator Range	Effective Range High (DF 1:50)	Upper Limit of Quantification (ULOQ)	Lower Limit of Quantification (LLOQ)	Precision* (Inter-assay)	Precision* (Intra-assay)	Average Linearity (R2 Value)	Linearity Range Tested	Vaccines
2	Indirect	2.46 – 0.00060 (µg /mL)	123 – 0.030 (µg /mL)	2.21 (µg /mL)	0.0018 (µg /mL)	14.4%	9.1%	0.91	12.34 – 0.035 (µg /mL)	PPSV23
10A	Indirect	1.30 – 0.00032 (µg /mL)	65.00 – 0.016 (µg /mL)	1.19 (µg /mL)	0.00097 (µg /mL)	13.7%	13.8%	0.91	6.01 – 0.021 (µg /mL)	PCV20, PCV21, PPSV23
11A	Indirect	0.51 – 0.00012 (µg /mL)	25.50 – 0.0060 (µg /mL)	0.45 (µg /mL)	0.00013 (µg /mL)	17.8%	5.5%	0.94	2.35 – 0.0043 (µg /mL)	PCV20, PCV21, PPSV23
15B	Indirect	1.69 – 0.00041 (µg /mL)	84.50 – 0.021 (µg /mL)	1.55 (µg /mL)	0.0012 (µg /mL)	14.7%	6.8%	0.92	6.62 – 0.020 (µg /mL)	PCV20, PCV21, PPSV23
17F	Indirect	0.85 – 0.00021 (µg /mL)	42.50 – 0.016 (µg /mL)	0.74 (µg /mL)	0.00080 (µg /mL)	13.1%	9.8%	0.89	3.44 – 0.013 (µg /mL)	PCV21, PPSV23
19A	Indirect	1.39 – 0.00034 (µg /mL)	69.50 – 0.017 (µg /mL)	1.29 (µg /mL)	0.0046 (µg /mL)	16.6%	12.5%	0.86	8.38 – 0.25 (µg /mL)	PCV10 (SII), PCV13, PCV15, PCV20, PCV21, PPSV23
20	Indirect	1.05 – 0.00026 (µg /mL)	52.50 – 0.013 (µg /mL)	0.92 (µg /mL)	0.00075 (µg /mL)	15.5%	4.5%	0.99	3.81 – 0.014 (µg /mL)	PCV21 (as 20A), PPSV23 (as 20)
22F	Indirect	0.95 – 0.00023 (µg /mL)	47.50 – 0.00023 (µg /mL)	0.87 (µg /mL)	0.0028 (µg /mL)	14.8%	12.8%	0.92	4.40 – 0.031 (µg /mL)	PCV15, PCV20, PCV21, PPSV23
33F	Indirect	1.07 – 0.00026 (µg /mL)	53.50 – 0.013 (µg /mL)	0.95 (µg /mL)	0.00023 (µg /mL)	12.6%	4.6%	0.97	4.45 – 0.0096 (µg /mL)	PCV15, PCV20, PCV21, PPSV23

**Intra-assay and inter-assay precision are calculated with n=20 and n=10 replicates, respectively.*

Expand Your Pneumococcal IgG Profile

Use either panel independently to study the serotypes most relevant to your research. When broader coverage is needed, use the Q-Plex™ Human Pneumococcal IgG 14-Plex and Q-Plex™ Human Pneumococcal IgG 9-Plex together to quantitatively measure IgG antibodies recognizing all 23 serotypes represented in the Pneumovax®23 vaccine.

Whether your research requires 9 serotypes, 14 serotypes, or the full 23-serotype profile, Q-Plex™ multiplexing helps conserve sample, consolidate testing, and produce quantitative results through a consistent workflow.



Published Research

The Q-Plex™ Human Pneumococcal IgG (14-Plex) and Q-Plex™ Human Pneumococcal IgG (9-Plex) were developed in collaboration with ARUP Laboratories and evaluated in a peer-reviewed study published in Clinical Immunology. The study describes the use and analytical validation of the two panels together as a 23-serotype multiplexed assay.

Scan the QR code to read the published study.

Choose the Coverage Your Research Requires

Select the Q-Plex™ Human Pneumococcal IgG (14-Plex), the Q-Plex™ Human Pneumococcal IgG (9-Plex), or both to match the serotypes relevant to your research.

Contact the Quansys Biosciences technical sales team to discuss your study requirements or request a quote.

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