

Biomarker assays are an important part of KCAS' full service assay capabilities. Our dedicated and highly experienced scientists use state-of-the-art technologies for biomarker analysis to support preclinical, clinical and exploratory projects where fast data turn-around may be of essence.

KCAS is the first GLP laboratory to qualify this full a-la-carte style list of 54 biomarkers, allowing for customization of panels that will fit the exact needs of a study. Additionally, KCAS can perform fit-for-purpose GLP validation of any of these 54 analytes if requested.



Therapeutic Areas: Oncology, Inflammation, Immunology, Allergy, Infectious Disease, Dermatology, Vaccines, Autoimmune disease and arthritis

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# **Fit-for-purpose Applications**

- Need-based qualification or validation
- Consultative in determining your needs
- Experience in method development and kit adaption
- · Single-plex and multiplex analysis
- Measurements in both animal and human matrices
- Nominal or no-cost qualification of most multiplex panels

## Chemokine Panel 1 Human Kit (10-plex)

Eotaxin	Human Plasma	3.26	5.86 - 1,120	ECL
Eotaxin-3	Human Plasma	1.77	4.85 - 3,750	ECL
IL-8 (HA)	Human Plasma	95.6	1186 - 43,400	ECL
Interferon γ - Inducible Protein -10 (IP-10)	Human Plasma	0.37	150 - 500	ECL
Monocyte Chemotactic Protein 1 (MCP-1)	Human Plasma	0.09	1.09 - 375	ECL
Monocyte Chemotactic Protein 4 (MCP-4)	Human Plasma	9.41	9.41 - 469	ECL
Macrophage-Derived Chemokine (MDC)	Human Plasma	1.22	10.4 - 7,500	ECL
Macrophage Inflammatory Protein (MIP-1β)	Human Plasma	0.37	3.68 - 750	ECL
Macrophage Inflammatory Protein (MIP-1α)	Human Plasma	0.99	0.99 - 743	ECL
Thymus Activation-Regulated Chemokine (TARC)	Human Plasma	0.22	0.37 - 1,120	ECL

# kcasbio.com/54plex

#### Cytokine Panel 1 Human Kit (10-plex)

Analyte			LLOQ-ULOQ (pg/mL)	
Granulocyte Macrophage- Colony Stimulating Factor (GM-CSF)	Human Plasma	0.14	0.243 - 750	ECL
Interleukin-12 (IL-12/IL-23p40)	Human Plasma	0.39	0.786 - 2,250	ECL
Interleukin-15 (IL-15)	Human Plasma	0.19	0.19 - 525	ECL
Interleukin-16 (IL-16)	Human Plasma	2.47	2.47 - 1,870	ECL
Interleukin-17A (IL-17A)	Human Plasma	0.74	1.47 - 3,650	ECL
Interleukin-1 a (IL-1a)	Human Plasma	0.09	0.396 - 278	ECL
Interleukin-5 (IL-5)	Human Plasma	0.22	3.56 - 562	ECL
Interleukin-7 (IL-7)	Human Plasma	0.21	0.21 - 563	ECL
Tumor Necrosis Factor (TNF-β)	Human Plasma	0.05	0.154 - 458	ECL
Vascular Endothelial Growth Factor (VEGF)	Human Plasma	0.46	0.46 - 784	ECL

#### **Proinflammatory Panel Human Kit (10-plex)**

Analyte				
Interferon-γ (INF-γ)	Human Plasma	0.20	1.33 - 938	ECL
Interleukin-10 (IL-10)	Human Plasma	0.03	0.31 - 233	ECL
Interleukin-12 (IL-12p70)	Human Plasma	0.11	0.40 - 315	ECL
Interleukin-13 (IL-13)	Human Plasma	0.24	2.45 - 353	ECL
Interleukin-1β (IL-1β)	Human Plasma	0.04	0.46 - 375	ECL
Interleukin-2 (IL-2)	Human Plasma	0.09	0.32 - 938	ECL
Interleukin-4 (IL-4)	Human Plasma	0.02	0.06 - 158	ECL
Interleukin-6 (IL-6)	Human Plasma	0.06	0.63 - 488	ECL
Interleukin-8 (IL-8)	Human Plasma	0.04	0.49 - 375	ECL
Tumor Necrosis Factor (TNF-α)	Human Plasma	0.04	0.31 - 248	ECL

#### Angiogenesis Panel (7-plex)

Analyte				
Vascular Endothelial Growth Factor (VEGF)	Human Plasma	0.46	0.46 - 784	ECL
Fms-like Tyrosine Kinase 1 (Flt-1)	Human Plasma	0.90	8.79 - 1,780	ECL
Phosphatidylinositol Glycan Anchor Biosynthesis, class F (PIGF)	Human Plasma	NA	N/A	ECL
Tyrosine Kinase 2 (Tie-2)	Human Plasma	31.30	72.30 - 63,400	ECL
Vascular Endothelial Growth Factor C (VEGF-C)	Human Plasma	9.91	20.80 - 17,500	ECL
Vascular Endothelial Growth Factor D (VEGF-D)	Human Plasma	4.36	5.66 - 18,800	ECL
Basic Fibroblast Growth Factor (bFGF)	Human Plasma	0.09	0.45 - 1,780	ECL

### Vascular Injury Panel (4-plex)

C-reactive Protein (CRP)	Human Plasma	1.33	52.70 - 49,600	ECL
Intercellular Adhesion Molecule 1 (ICAM-1)	Human Plasma	1.03	13.20 - 32,700	ECL
Serum Amyloid A (SAA)	Human Plasma	10.90	54.20 - 138,000	ECL
Vascular Cell Adhesion Molecule 1 (VCAM-1)	Human Plasma	6.00	13.90 - 32,000	ECL

# Cytokine Panel 2 (8-plex)

Analyte			LLOQ-ULOQ (pg/mL)	
Interleukin-17A/F (IL-17A/F)	Human Plasma	0.93	0.93 - 1,950	ECL
Interleukin-17C (IL-17C)	Human Plasma	0.68	2.44 - 1,620	ECL
Interleukin-1 Receptor Antagonist (IL-1RA)	Human Plasma	0.70	0.70 - 650	ECL
Interleukin-9 (IL-9)	Human Plasma	0.35	0.35 - 975	ECL
Interleukin-17B (IL-17B)	Human Plasma	0.19	0.34 - 1,040	ECL
Interleukin-17D (IL-17D)	Human Plasma	1.77	1.77 - 5,200	ECL
Interleukin-3 (IL-3)	Human Plasma	2.37	13.40 - 1,950	ECL
Thymic Stromal Lymphopoietin (TSLP)	Human Plasma	0.06	0.13 - 325	ECL

### TH17 Panel (7-Plex)

Analyte				
Interleukin-17A assay generation B (IL-17A GEN B)	Human Plasma	0.41	2.67 - 1,950	ECL
Interleukin-21 (IL-21)	Human Plasma	0.25	0.25 - 650	ECL
Interleukin-22 (IL-22)	Human Plasma	0.27	0.55 - 325	ECL
Interleukin-23 (IL-23)	Human Plasma	0.27	1.12 - 3,250	ECL
Interleukin-27 (IL-27)	Human Plasma	4.20	66.80 - 13,000	ECL
Interleukin-31 (IL-31)	Human Plasma	0.22	0.22 - 650	ECL
Macrophage Inflammatory Protein-3α (MIP-3α)	Human Plasma	0.50	0.50 - 325	ECL

# **Customized Solutions**

- · Long-term sample storage
- · Global sample kit production and shipping expertise
- Custom reporting available