

**INTENDED USE & DESCRIPTION**

For use as quantitative controls for the determination of cytokine concentrations in biological fluids. Concentrations have been assigned using R&D Systems' Quantikine kits. Controls are prepared in diluted porcine serum with preservatives. They contain recombinant human cytokines at low, medium and high concentrations. Controls are supplied lyophilized.

**STORAGE & STABILITY**

Unreconstituted controls should be stored at 2-8 °C and are stable for at least 6 months from date of receipt. Depending on the analyte of interest, reconstituted controls may be stable when stored at ≤ -20 °C. Users should evaluate the frozen stability of the controls in their application or discard after use.

**REAGENT PREPARATION**

Reconstitute each vial with the volume of deionized or distilled water indicated in the chart below.

**PROCEDURE & EXPECTED VALUES**

Controls should be used undiluted and assayed as unknown specimens. **Note:** Do not activate controls when running TGF-β1.

The acceptable ranges (±3 SD) for the analytes in these controls are printed below. Due to possible variations in techniques and methodologies, it is recommended that each laboratory determine its own target range. Laboratories using other test systems should establish their own acceptable ranges as these assays may produce different values.

Analyte	Catalog #	Kit Diluent	Water Recon. Volume	Lot # P247029 (pg/mL)	Lot # P247032 (pg/mL)	Lot # P247037 (pg/mL)
Human G-CSF	DCS50, SCS50, PDCS50	RD5-5	1.5 mL	101-165	419-683	759-1573
		RD6A		137-239	566-924	1179-1923
Human GM-CSF	DGM00, SGM00, PDGM00	RD5-5	2.0 mL	30.2-49.3	92.8-151	183-298
		RD6P		37.4-61.0	118-192	236-386
Human IFN-γ	DIF50, SIF50, PDIF50	RD6-21	3.0 mL	66.7-131	210-411	467-940
Human IL-1α	DLA50, SLA50, PDLA50	RD5-5	2.5 mL	13.0-21.2	42.3-69.1	85.7-140
		RD6C		20.2-32.9	62.1-101	123-201
Human IL-1β	DLB50, SLB50, PDLB50	RD5-5	1.5 mL	15.6-25.5	52.4-85.5	107-175
		RD6C		22.7-37.0	70.9-116	147-242
Human IL-2	D2050, S2050, PD2050	RD5-5	2.5 mL	118-208	371-619	759-1238
		RD6E		159-286	473-830	983-1625
Human IL-4	D4050, S4050, PD4050	RD5L	3.0 mL	105-187	315-591	667-1165
		RD6-9		94.1-188	328-541	650-1076
Human IL-6	D6050, S6050, PD6050	RD5T	1.5 mL	22.1-36.1	68.8-112	138-225
		RD6F		23.5-38.4	73.7-120	146-238
Human IL-10	D1000B, S1000B, PD1000B	RD5C	1.5 mL	26.2-62.3	95.2-168	199-324
		RD6P		44.6-86.5	146-240	277-478
Human IL-12 p70	D1200, S1200, PD1200	RD5C (cell culture supernates/serum/plasma)	2.0 mL	36.2-59.0	109-178	221-361
		RD5C (urine)		34.3-55.9	106-172	217-353
Human MCP-1	DCP00, SCP00, PDCP00	RD5L	2.0 mL	111-181	347-566	691-1127
		RD6Q		147-291	539-879	1091-1781
Human TGF-β1	DB100B, SB100B, PDB100B	RD5-53 (serum/plasma)	3.5 mL	147-241	405-663	763-1342
		RD5-53 (cell sups/urine)	3.0 mL	138-242	401-653	735-1317
h/m/r/p/c TGF-β1	DB100C, SB100C, PDB100C	RD6-11 (serum/plasma)	3.5 mL	138-249	355-668	673-1239
		RD6-11 (cell sups/urine)	3.0 mL	135-257	397-701	564-1335
Human VEGF	DVE00, SVE00, PDVE00	RD5K	4.0 mL	85.3-139	255-417	496-810
		RD6U	3.0 mL	126-206	386-630	763-1245

**TECHNICAL HINTS & LIMITATIONS OF THE PROCEDURE**

- The ranges were determined using R&D Systems Quantikine kits. If expected values are not obtained, verify that the lot numbers on the vials correspond with the lot numbers listed above and the correct volume of deionized or distilled water was used for reconstitution of the controls.
- The results obtained with these controls depend upon several factors associated with methods and instrumentation. Test systems other than those supplied by R&D Systems may result in values that differ from those printed on this product datasheet.