

R-PLEX™ Dilution Factors and Assay/Antibody Diluent Combinations

The tables below provide the dilution factors and primary diluent combinations for samples tested with R-PLEX Antibody Sets. These dilution factors and diluent combinations are recommended as starting points when developing your assay; however, other sample dilutions and diluents should be considered based on the sample environment. Please refer to the R-PLEX datasheet for additional information on your analyte(s) of interest. For further guidance, please contact our Scientific Support team at scientificsupport@mesoscale.com.

Notes:

- (1) Additional assay diluent is necessary for samples that are diluted greater than 10-fold. Diluent 100 may be used in place of assay diluent for samples that require high dilution. Testing of different diluents can help optimize assays for specific experimental conditions.
- (2) Some assay and antibody diluents require additives, as noted in the tables. For more information, refer to the product-specific datasheet available at www.mesoscale.com/R-PLEX-documents.
- (3) For cell lysate samples, the fold dilution or total protein amount (µg/well) is dependent on the cell type and model system used. We recommend performing a dilution series and testing for diluent compatibility.

Human Antibody Sets

The dash (–) indicates that the sample type information is not available.

R-PLEX Human Antibody Set	Dilution Factor					Primary Assay Diluent	Primary Antibody Diluent
	Serum	Plasma	Urine	CSF	(Other)		
4-1BB/TNFRSF9	4	4	–	–	–	7	11
A2M	4,000	4,000	–	–	–	12	12
Aβ (total)	–	–	–	4	–	35	100
Aβ40 (6E10)	–	–	–	3	–	35	100
Aβ42 (6E10)	–	–	–	2	–	35	100
Adiponectin	8,000	8,000	–	–	–	43	3
AGP	–	300,000	–	–	–	37	37
Aiolos	–	–	–	–	0.62 µg/well (Cell Lysate)	39 with additives	MSD Tris Wash Buffer with additives
Albumin	320,000	320,000	500	–	–	37	37
Alpha-amylase 1	100	100	–	–	–	2	3
Ang-1	2	2	2	2	–	10	3
Ang-2	2	2	2	2	–	10	3
Annexin A1	–	4	–	–	–	7	37
ApoA1	–	300,000	–	–	–	37	37
ApoC3	50,000	50,000	–	–	–	101	100
ApoE	4,000	4,000	–	–	–	37	37
APRIL/TNFSF13	32	–	–	–	–	43	3
β-NGF	2	2	–	–	–	2	3
B2M	4,000	4,000	4,000	4,000	–	12	12
B7-H2/ICOS-L	16	16	–	–	–	43	3
B7-H3/CD276	8	8	–	–	–	7	11
BAFF	8	8	–	–	–	2	3
BAFF-R	2	2	–	–	–	12	12
Bcl-2	–	–	–	–	0.31 µg/well (Cell Lysate)	39 with additives	39
BCMA	400	–	–	–	–	43	3
BDNF	5	5	–	5	–	7	101
BIM/Bcl2-L-11	–	–	–	–	2.0 µg/well (Cell Lysate)	39 with additives	39
CA1	–	5,000	–	–	–	101	37
CA15-3	20	20	20	20	–	2	3
CA50	20	20	20	20	–	2	3
CA125	20	20	20	20	–	2	3
Calbindin	10	10	10	–	10	7	3

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	Serum	Plasma	Urine	CSF	(Other)		
Calprotectin	–	100	–	–	–	101	37
Cathepsin D	–	100	–	–	–	101	37
CD5	–	Neat	–	–	–	2	3
CD20	–	Neat	–	–	–	2	3
CD27	–	Neat	–	–	–	2	3
CD28	Neat	Neat	–	–	–	43	3
CD31/PECAM-1	20	20	–	–	–	12	12
CD40/TNFRSF5	2	2	–	–	–	2	3
CD40L (soluble)	Neat	Neat	–	–	–	12	12
CD80/B7-1	Neat	Neat	–	–	–	7	11
CEA	–	4	–	–	–	7	37
cIAP1	–	–	–	–	2.5 µg/well (Cell Lysate)	MSD Tris Lysis Buffer with additives	MSD Tris Wash Buffer
cIAP2	–	–	–	–	2.5 µg/well (Cell Lysate)	MSD Tris Lysis Buffer with additives	MSD Tris Wash Buffer
CKBB	2	2	–	–	–	101	3
Clusterin	–	5,000	–	–	–	101	37
Complement C3	–	300,000	–	–	–	37	37
Complement C9	–	5,000	–	–	–	101	37
Complement factor D	100	100	–	–	–	13	12
Corin/ATC2	2	2	–	–	–	12	12
C-Peptide	Neat	Neat	–	–	–	13	12
CRP	1,000	1,000	1,000	–	–	101	101
CTLA-4	2	2	–	–	2 (Cell Lysate)	2	3
Cystatin C	2,000	2,000	–	–	–	12	12
Cytokeratin-8	2	2	2	2	–	10	3
DJ-1/PARK7	–	8	–	8	–	35	100
DPPIV	–	5,000	–	–	–	101	37
E-Cadherin	20	20	20	20	–	2	3
EGF	–	500	500	–	–	37	37
Endoglin	50	50	50	50	–	43	3
Enolase 2	5	5	–	5	–	7	7
E-Selectin	2	2	2	2	–	10	3
FABP3/H-FABP	2	2	–	–	–	12	3
Factor VII	100	100	–	–	–	12	12
FAP-α/SEPR	–	100	–	–	–	101	37
FasL	2	2	2	2	–	10	3
Fas (soluble)	50	50	50	50	–	7	8
FGF (basic)	2	2	2	2	–	7	11
FGF-21	4	4	–	–	–	13	12
FGF-23	4	4	–	–	–	13	12
FSH	Neat	Neat	–	–	–	13	12
Galectin-3	50	50	–	–	–	2	3
GDF-15	–	100	–	–	–	101	37
Gelsolin	–	100	–	–	–	101	37
GFAP	2	2	–	2	–	101	27
Ghrelin (total)	2	2	–	–	–	101	37
GIP (active)	2	2	–	–	–	13	12
GIP (inactive)	2	2	–	–	–	13	12

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	Serum	Plasma	Urine	CSF	(Other)		
GIP (total)	2	2	–	–	–	13	12
GITR	2	2	–	–	2 (Cell Lysate)	12	12
GITRL	2	2	–	–	2 (Cell Lysate)	12	12
Glicentin	–	2 (P800)	–	–	–	12	11
GLP-1 (active)	–	4	–	–	–	12	12
GLP-1 (inactive)	4	4	–	–	–	12	12
GLP-1 (total)	4	4	–	–	–	12	12
Glucagon	2	2	–	–	–	12	11
gp130 (soluble)	25	–	–	–	–	43	3
Granzyme A	2	2	–	–	2 (Cell Lysate)	2	3
Granzyme B	2	2	–	–	2 (Cell Lysate)	2	3
Haptoglobin	–	300,000	–	–	–	37	37
HAVCR1/KIM-1	–	–	10	–	–	37	37
Hemoglobin alpha	400	400	–	–	10 (Stool)	100	100
Hemopexin	20,000	20,000	–	–	10 (Stool)	100	100
HGF	2	2	–	–	–	12	12
HSP70	–	2	–	–	–	12	12
ICAM-1	1,000	1,000	–	–	–	101	101
ICAM-3	2	2	2	2	–	10	3
ICOS	Neat	Neat	–	–	–	43	3
IGFBP-4	20	–	–	–	–	12	12
Ikaros	–	–	–	–	0.62 µg/well (Cell Lysate)	39 with additives	MSD Tris Wash Buffer with additives
IL1RL1/ST2	4	4	–	–	–	7	37
IL-6R	50	50	50	50	–	7	8
Insulin	Neat	Neat	–	–	–	13	12
IRS-1	–	–	–	–	0.63 µg/well (Cell Lysate)	13	12
Lactotransferrin	50	50	–	–	100 (Stool)	100	100
LAG3	2	2	–	–	2 (Cell Lysate)	2	3
Leptin	Neat	Neat	–	–	–	13	12
LIGHT/TNFSF14	Neat	Neat	–	–	–	43	3
LRRK2*	–	–	–	–	2.5-5.0 µg/well (Cell Lysate)	MSD Tris Lysis Buffer with additives	MSD Tris Wash Buffer with additives
LRRK2 (pS935)*	–	–	–	–	2.5-5.0 µg/well (Cell Lysate)	MSD Tris Lysis Buffer with additives	MSD Tris Wash Buffer with additives
Luteinizing Hormone	Neat	Neat	–	–	–	13	12
Mcl-1/BAK Complex	–	–	–	–	5.0 µg/well (Cell Lysate)	39 with additives	39
Mcl-1/Bcl2-L-3	–	–	–	–	2.0 µg/well (Cell Lysate)	39 with additives	39
Mcl-1/BIM Complex	–	–	–	–	5.0 µg/well (Cell Lysate)	39 with additives	39
Mesothelin	50	50	50	50	–	7	8
Met (soluble)	20	20	20	20	–	2	3
MIG	4	4	4	4	–	2	3
MIP-4	1,000	1,000	–	–	–	43	3
MMP-1	10	10	10	10	–	7	3
MMP-2	2	2	–	–	–	2	3
MMP-3	10	10	10	10	–	7	3

*Human LRRK2 and LRRK2 (pS935) assays require special handling. Please see the product-specific datasheet for details.



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	Serum	Plasma	Urine	CSF	(Other)		
MMP-7	2	2	–	–	–	12	12
MMP-9	10	10	10	10	–	7	3
MMP-9 (total)	40	40	–	–	–	2	3
MMP-10	2	2	–	–	–	2	3
MPO	20	20	–	–	–	43	3
NCAM-1	100	100	–	–	–	101	3
Nectin-4	2	2	2	2	–	10	3
Neurofilament H	–	–	–	2	–	12	11
Neurofilament L	2	2	–	2	–	12	11
Neurogranin	–	–	–	16	–	101	101
NGAL/LCN2	60	60	–	–	–	43	3
NT-ProBNP	50	50	–	–	–	2	3
Osteoactivin	10	10	10	10	–	7	3
Osteocalcin	50	50	50	50	–	7	8
Osteonectin	2	2	2	2	–	2	3
Osteopontin	–	4	–	–	–	7	37
Osteoprotegerin	2	2	2	2	–	2	3
OX40	2	2	–	–	2 (Cell Lysate)	12	12
OX40L	2	2	–	–	2 (Cell Lysate)	12	12
P-Cadherin	10	10	10	10	–	7	3
PD1	2	2	–	–	2 (Cell Lysate)	2	3
PD-L1	2	2	–	–	2 (Cell Lysate)	2	3
PD-L2	2	2	–	–	2 (Cell Lysate)	2	3
Pentraxin 3	2	2	–	–	–	12	12
Perforin	8	8	–	–	–	2	3
PIGF	2	2	2	2	–	7	11
PP	8	8	–	–	–	101	37
PRDX-1	–	4	–	–	–	7	37
PRDX-6	5	5	–	5	–	7	7
Prolactin	10	10	–	–	–	13	12
proMMP-9	40	40	–	–	–	2	3
P-Selectin	2	2	2	2	–	10	3
PSGL-1	–	4	–	–	–	7	37
PYY (active)	2	2	–	–	–	12	11
PYY (total)	4	4	–	–	–	43	3
RAGE (soluble)	–	2	–	–	–	12	12
RANTES	50	50	50	50	–	7	8
RBP4	2,000	2,000	2	–	–	37	37
Resistin	50	50	50	50	–	2	3
S100A8/MRP8	2	2	–	–	–	12	12
S100A12	80	2	–	–	–	12	12
SAA	1,000	1,000	–	–	–	101	101
SCF	2	2	2	2	–	10	3
SCFR/Kit	50	50	–	–	–	7	11
Serpin A1	–	300,000	–	–	–	12	12
Serpin A12/Vaspin	2	2	–	–	–	12	12
Serpin E1 (inactive)	30	30	–	–	–	43	3
Serpin E1 (total)	30	30	–	–	–	43	3

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	Serum	Plasma	Urine	CSF	(Other)		
Serpin F2	20,000	20,000	–	–	2 (Stool)	100	100
SHBG	1,000	–	–	–	–	43	3
TACI/TNFRSF13	8	8	–	–	–	43	3
Tau (total)	–	–	–	4	–	35	35
Tenascin C	4,000	4,000	4,000	4,000	–	12	12
TFF3	–	4	–	–	–	7	37
TfR-1 (soluble)	–	5,000	–	–	–	101	37
Thrombomodulin	2	2	2	2	–	10	3
Tie-2	2	2	2	2	–	7	11
TIM-3/HAVCR2	4	4	–	–	–	43	3
TIMP-1	–	100	–	–	–	101	37
TLR1	2	2	–	–	2 (Cell Lysate)	2	3
TNFAIP6/TSG-6	2	2	–	–	–	12	12
TNF-RI	10	10	10	10	–	7	3
TNF-RII	10	10	–	–	–	2	3
TNFRSF10C	20	20	–	–	–	12	12
Troponin T (cardiac)	20	–	–	–	–	7	22
U-PAR	–	2	–	–	–	12	12
Uromodulin	500	500	500	–	–	37	37
VCAM-1	1,000	1,000	–	–	–	101	101
VEGF-D	2	2	2	2	–	7	11
VEGFR-2/KDR	50	50	–	–	–	7	11
VILIP-1	2	2	–	2	–	101	101
Vit D Binding Protein	500,000	500,000	–	–	–	2	3
vWF	1,000	1,000	–	1,000	–	12	12

NHP Antibody Sets

R-PLEX NHP Antibody Set	Dilution Factor		Primary Assay Diluent	Primary Antibody Diluent
	Serum	Plasma		
Alpha-amylase 2A	5,000	5,000	2	3
Glucagon	2	2	12	11

Mouse Antibody Sets

R-PLEX Mouse Antibody Set	Dilution Factor		Primary Assay Diluent	Primary Antibody Diluent
	Serum	Plasma		
Adiponectin	1,000	1,000	100	100
C-Peptide	Neat	Neat	13	12
Glucagon	2	2	12	11
Leptin	Neat	Neat	100	17
PYY (total)	Neat	Neat	13	12
Resistin	20	20	11	11

Note: Mouse C-Peptide and PYY (total) antibody sets also detect rat C-Peptide and PYY (total).

R-PLEX Dilution Factors and Assay/Antibody Diluent Combinations

Rat Antibody Sets

The dash (–) indicates that the sample type information is not available.

R-PLEX Rat Antibody Set	Dilution Factor			Primary Assay Diluent	Primary Antibody Diluent
	Serum	Plasma	Urine		
A2M	20,000	20,000	–	100	100
Adiponectin	1,000	1,000	–	100	100
AGP	20,000	20,000	–	100	100
C-Peptide	Neat	Neat	–	13	12
EPO	Neat	Neat	–	42	40
Glucagon	2	2	–	12	11
GM-CSF	2	2	–	42	40
IFN- γ	4	4	4	42	40
IL-1 α	4	4	–	42	40
IL-1 β	4	4	–	42	40
IL-2	2	2	–	42	40
IL-4	4	4	–	42	40
IL-5	2	2	–	42	40
IL-6	4	4	–	42	40
IL-10	2	2	–	42	40
IL-13	Neat	Neat	–	42	40
KC/GRO	8	8	–	42	40
KIM-1	4	4	–	42	40
Leptin	Neat	Neat	–	6	100
MCP-1	Neat	Neat	–	42	40
MIP-3 α	Neat	Neat	–	42	40
NGAL/LCN2	100	100	–	7	100
Osteopontin	–	–	10	29	100
PYY (total)	Neat	Neat	–	13	12
TIMP-1	20	20	–	11	5
TNF- α	2	2	–	42	40
VEGF-A	Neat	Neat	–	42	40

Note: Rat C-Peptide and PYY (total) antibody sets also detect mouse C-Peptide and PYY (total).

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