

# R-PLEX™ Antibody Set

## Rat IL-10

Cat. No: F231V-3, 5-plate size

F231V-8, 50-plate size

### Ordering Information

MSD Customer Service  
Phone: 1-240-314-2795  
Fax: 1-301-990-2776  
Email: CustomerService@mesoscale.com  
[www.mesoscale.com/support](http://www.mesoscale.com/support)

### Scientific Support

Phone: 1-240-314-2798  
Email: ScientificSupport@mesoscale.com  
[www.mesoscale.com/support](http://www.mesoscale.com/support)

### Company Address

MESO SCALE DISCOVERY®  
A division of  
Meso Scale Diagnostics, LLC.  
1601 Research Boulevard  
Rockville, MD 20850-3173 USA

[www.mesoscale.com](http://www.mesoscale.com)®

For Research Use Only.  
Not for use in diagnostic  
procedures.

### Contents and Storage

#### Description

Description	No. of vials	Vol. /vial	Storage
Rat IL-10 Calibrator, 20X	5	50 µL	≤-70°C
Biotin Rat IL-10 Capture Antibody	1	1,250 µL	2-8°C
SULFO-TAG™ Rat IL-10 Detection Antibody, 100X	1	375 µL	2-8°C

**Note:** Calibrators and antibodies are shipped separately.

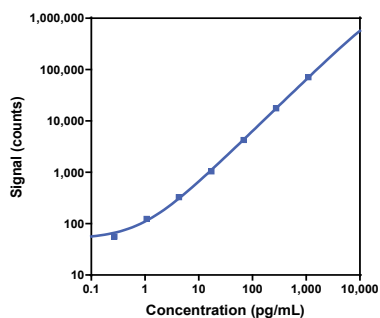
R-PLEX Antibody Sets provide an expanded menu of electrochemiluminescence assays for biomarker discovery and development. The sets include a matched biotinylated capture and SULFO-TAG conjugated detection antibody pair and calibrator for the quick and easy development of highly sensitive immunoassays on a variety of MSD® plates including U-PLEX® MULTI-SPOT plates and MSD GOLD™ Small Spot Streptavidin plates.

Interleukin-10 (IL-10, cytokine synthesis inhibitory factor, CSIF) is produced by a variety of cell lines such as T cells, macrophages, and mast cells. The homodimer binds to two IL-10R $\alpha$  subunits resulting in recruitment of two IL-10R $\beta$  chains to initiate the signal cascades. IL-10 is involved in the inhibition of IFN- $\gamma$ , IL-2, IL-3, TNF- $\alpha$ , TNF- $\beta$ , and GM-CSF, that suppress Th1 proinflammatory responses and promote phagocytic uptake.

### Assay Performance

R-PLEX Antibody Sets can be easily adapted to develop singleplex and multiplex assays on the MSD platform. MSD GOLD Small Spot Streptavidin plates can be used for singleplex assay development, whereas multiplex assay formats can be performed using U-PLEX MULTI-SPOT® plates.

Representative data from the R-PLEX Rat IL-10 Antibody Set tested on MSD's U-PLEX platform using Diluent 42 as assay diluent and Diluent 40 as antibody diluent is presented below. The lower limit of detection (LLOD) is a calculated concentration corresponding to the signal 2.5 standard deviations above the background (zero calibrator). The performance of your assay may vary depending on the diluent used, the sample type, and the other analytes when testing in a multiplexed format.



Top-of-Curve Conc. (pg/mL)	LLOD (pg/mL)
1,100	1.4

For developing individual assays using R-PLEX Antibody Sets, please refer to the R-PLEX Antibody Sets Singleplex Assays product insert. For multiplex assay development using R-PLEX Antibody Sets or a combination of R-PLEX and U-PLEX Antibody Sets, refer to the U-PLEX Development Pack product insert. The detailed instruction manuals as well as the R-PLEX assay datasheets are available at [www.mesoscale.com/R-PLEX-documents](http://www.mesoscale.com/R-PLEX-documents).

### Sample Dilution

The R-PLEX Rat IL-10 assay has been tested with the following sample type(s) at the specified dilution in assay diluent.

Sample Type	Recommended Fold Dilution
Serum	Neat
Plasma	Neat

The assay may be used for other sample types. We recommend performing a dilution series and testing for diluent compatibility when measuring a different sample type.

# R-PLEX Antibody Set

## Source

Calibrator	Recombinant interleukin-10 expressed in <i>E. coli</i>
Antibodies	Capture antibody - mouse monoclonal, detection antibody - mouse monoclonal
Assay generation	B

## Recommended Assay Components

The following items are recommended for developing assays using R-PLEX Antibody Sets.

**Plates for Singleplex Assay Development:** All plates are available in 1, 5, 30, 120, and 510 plate sizes.

Description	Catalog No.
MSD GOLD 96-well Small Spot Streptavidin Plates	L45SA

**Plates for Multiplex Assay Development:** The U-PLEX platform allows you to create your own multiplex assays. Using two simple tools, a 10-spot U-PLEX plate and unique Linkers, you can build custom multiplex panels for any combination of analytes. U-PLEX Development Pack includes U-PLEX Plates, Linkers, Stop Solution, and Read Buffer T. All development packs are available in 1, 5, and 25-plate pack sizes. You can choose the appropriate Development Pack according to the number of assays you plan to multiplex, e.g., use a U-PLEX 4-Assay Development Pack if you are developing a 4-plex assay.

Description	Catalog No.
U-PLEX 2-Assay Development Pack	K15227N
U-PLEX 3-Assay Development Pack	K15228N
U-PLEX 4-Assay Development Pack	K15229N
U-PLEX 5-Assay Development Pack	K15230N
U-PLEX 6-Assay Development Pack	K15231N

Description	Catalog No.
U-PLEX 7-Assay Development Pack	K15232N
U-PLEX 8-Assay Development Pack	K15233N
U-PLEX 9-Assay Development Pack	K15234N
U-PLEX 10-Assay Development Pack	K15235N

**Note:** R-PLEX assays can be combined with U-PLEX assays to build multiplex panels. View the R-PLEX Assay Designer at [www.mesoscale.com/R-PLEX](http://www.mesoscale.com/R-PLEX) to customize your multiplex panel.

## Buffers:

Description	Catalog No.
MSD GOLD Read Buffer (200 mL)	R92TG-1
MSD Wash Buffer (20X, 100 mL)	R61AA-1

## Diluent Compatibility

The R-PLEX Rat IL-10 Antibody Set has been tested with the following diluents.

Diluent Type	Diluent Name	Catalog No.	Size
Assay Diluent	Diluent 42	R50AK-1	10 mL
		R50AK-2	50 mL
Antibody Diluent	Diluent 40	R50AJ-1	5 mL
		R50AJ-2	25 mL

To run five plates, 50 mL of assay diluent and 40 mL of antibody diluent are required. Additional assay diluent may be required for sample dilution. Testing of different diluents can help optimize assays for specific experimental conditions. MSD offers a range of assay and antibody diluents for separate purchase. Please view our website at [www.mesoscale.com/R-PLEX](http://www.mesoscale.com/R-PLEX) for more details on compatible diluents for R-PLEX assays.

The R-PLEX Rat IL-10 Antibody Set is for research use only.