

# R-PLEX™ Antibody Set

## Human LRRK2

Cat. No: F211P-3, 5-plate size

F211P-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)®

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Not for use in diagnostic  
procedures.

### Contents and Storage

#### Description

Human LRRK2 Calibrator, 20X	No. of vials	5	Vol. /vial	50 µL	Storage	≤-70°C
Biotin Human LRRK2 Capture Antibody		1		1,250 µL		2-8°C
SULFO-TAG™ Human LRRK2 Detection Antibody, 100X		1		375 µL		2-8°C

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

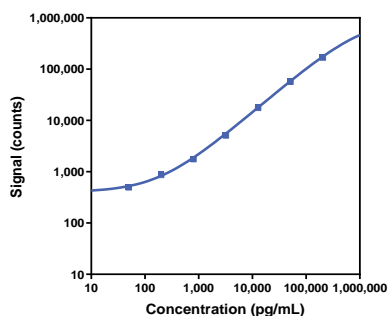
R-PLEX Antibody Sets provide an expanded menu of electrochemiluminescence assays for biomarker discovery and development. The sets include a matched biotinylated capture and SULFO-TAG conjugated detection antibody pair and calibrator for the quick and easy development of highly sensitive immunoassays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

Leucine Rich Repeat Kinase 2 (LRRK2, PARK8, RIPK7, ROCO2, AURA17, Dardarin) is a protein with multiple domains including: kinase, leucine rich repeat, RAS, GTPase, and WD40. Variants and mutants of this gene are associated with increased risk of Parkinson's disease (PD). LRRK2 is extensively phosphorylated. The various phosphorylations are being studied with regard to PD. Genomic studies indicate LRRK variants also increase the risk of Crohn's disease.

### 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 Human LRRK2 Antibody Set tested on MSD's U-PLEX platform 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)
200,000	98

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 Human LRRK2 assay has been tested with the following sample type(s) at the specified amount of total protein loaded per well.

Sample Type	Total Protein (µg/well)
PBMC Lysate	2.5-5.0

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.

**Note:** LRRK2 is typically located in intracellular compartments. The sample prep required may not be compatible with extracellular biomarkers.

# R-PLEX Antibody Set

## Source

Calibrator	Recombinant Leucine Rich Repeat Kinase 2 expressed in mammalian cells
Antibodies	Capture antibody - mouse monoclonal, detection antibody - mouse monoclonal
Assay generation	A

## 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 Tris Wash Buffer (10X, 200 mL)	R61TX-2

## Diluent Compatibility

The R-PLEX Human LRRK2 Antibody Set has been tested with the following diluents.

Diluent Type	Diluent Name	Catalog No.	Size	Diluent Preparation
Assay Diluent	MSD Tris Lysis Buffer	R60TX-3	50 mL	The Assay Diluent is prepared according to the <b>Reagent Preparation - Complete Lysis Buffer</b> section of the <a href="#">Inhibitor Pack product insert</a> . Prepare 10 mL per assay plate. Store the solution on ice.
		R60TX-2	200 mL	
Assay Diluent Additive	Inhibitor Pack	<a href="#">R70AA-1</a>	N/A	
Antibody Diluent	MSD Tris Wash Buffer (10X)	R61TX-2	200 mL	The Antibody Diluent is prepared by diluting <b>MSD Tris Wash Buffer (10X)</b> to 1X with deionized water, then adding 0.1 g of <b>Blocker A</b> per 10 mL of the 1X buffer. Let sit for 30 minutes while the powder dissolves fully. Prepare 10 mL per assay plate. Store the solution on ice.
		R61TX-1	1L	
Antibody Diluent Additive	Blocker A	<a href="#">R93BA-4</a>	15 g	

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 Human LRRK2 Antibody Set is for research use only.