



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

## Ordering Information

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## Scientific Support

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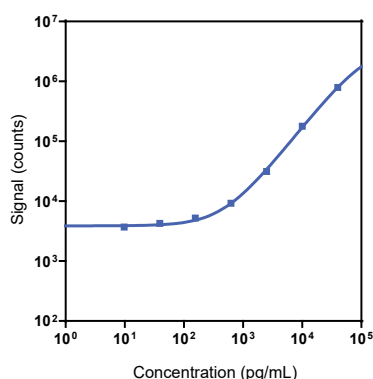
## Company Address

Meso Scale Discovery  
A division of  
Meso Scale Diagnostics, LLC.  
1601 Research Boulevard  
Rockville, MD 20850-3173 USA

Product Options	Catalog Number	Description
Singleplex	K151D5R-2	R-PLEX Human DKK-1 Assay with SECTOR™ plates
Antibody Set	F21D5-3	R-PLEX Human DKK-1 Antibody Set
Protocol	Assay Protocol 4 in the <a href="#">R-PLEX Antibody Sets Singleplex Assays Insert</a>	

MESO SCALE DISCOVERY® R-PLEX Antibody Sets and Assays provide an expanded menu of electrochemiluminescence reagents for biomarker discovery and development. The Antibody 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. R-PLEX® Assays add diluents, MSD GOLD™ Read Buffer B, and the appropriate plates, providing a complete set of components to develop and run an assay. R-PLEX Assays with QuickPlex Ultra plates can only be read on the MESO® QuickPlex Q 60MM instrument. R-PLEX Assays with SECTOR plates can be read on all MESO SECTOR® instruments and the MESO QuickPlex® SQ 120/120MM instrument.

## Representative Calibration Curve and Sensitivity



Calibrator Stock (20X)	800,000 pg/mL
Calibrator Standard 1 (top of curve); 20-fold Calibrator stock dilution	40,000 pg/mL
LLOD	36 pg/mL

Representative data using the primary diluent pair in singleplex are presented above. The calibration curve was fitted with a 4-parameter logistic (or sigmoidal dose-response) model with a 1/Y<sup>2</sup> weighting. The lower limit of detection (LLOD) is a calculated concentration corresponding to the signal 2.5 standard deviations above the background (zero Calibrator).

Refer to the R-PLEX Singleplex Product Insert when developing a singleplex assay. Use the R-PLEX Multiplex Product Insert when developing a multiplex R-PLEX assay. For multiplexing 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](http://www.mesoscale.com).

**Note:** For best performance, it is strongly recommended that both singleplex and multiplex assay formats of DKK-1 be performed using U-PLEX MULTI-SPOT® plates.

## Sample Dilution

The R-PLEX Human DKK-1 Antibody Set has been tested with the following sample type(s) at the specified dilution in assay diluent.

Sample Type	Fold Dilution
Serum	2
Plasma	2

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

The fold dilution specified is a suggested dilution. We recommend that sample dilution and other assay parameters be optimized prior to running samples.

# MSD® R-PLEX Assays

## Source

<b>Calibrator</b>	Recombinant Human DKK-1 expressed in an insect cell line
<b>Antibodies</b>	Capture antibody - mouse monoclonal, detection antibody - goat polyclonal
<b>Assay Generation</b>	A

## Recommended Assay Components

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

**Singleplex Assay Development:** U-PLEX 2-Assay Development Packs are recommended and are available in 1, 5, and 25 plate sizes. Streptavidin-coated plates are not recommended for this Antibody Set.

Description	Catalog No.
U-PLEX 2-Assay Development Pack	K15227N

## Buffers

Description	Catalog No.	Included in:
Diluent 100 (50 mL)	R50AA-4	K151D5R
MSD GOLD Read Buffer B (90 mL)	R60AM-2	K151D5R
MSD Wash Buffer (20X, 100 mL)	R61AA-1	-
MSD Tris Wash Buffer (10X, 200 mL)	R61TX-2	-

## Diluent Compatibility

The R-PLEX Human DKK-1 Antibody Set has been tested with the following diluent pair(s). The primary diluent pair was used for generating the data shown above and is included in the R-PLEX Human DKK-1 Assay. Alternate diluent pairs may be considered for use with R-PLEX Antibody Sets, based on the sample type.

Tested Diluent Pair	Assay Diluent		Antibody Diluent	
	Description	Catalog No.	Description	Catalog No.
Primary	MSD Tris Wash Buffer (10X)	R61TX	MSD Tris Wash Buffer (10X)	R61TX

Diluents sufficient to run 40 samples per plate in duplicate with up to a 10-fold sample dilution are provided with R-PLEX assays.

Additional assay diluent may be necessary for samples that are diluted greater than 10-fold and can be ordered separately. 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 and sample types.

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.

