

# Human Arginase-1



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

## Ordering Information

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## Scientific Support

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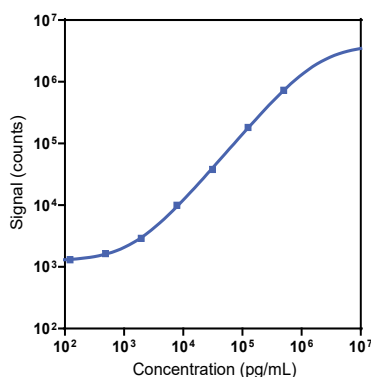
## Company Address

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

Product Options	Catalog Number	Description
Singleplex	K151Q1R-2	R-PLEX Human Arginase-1 Assay with SECTOR™ plates
Antibody Set	F21Q1-3	R-PLEX Human Arginase-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)	10,000,000 pg/mL
Calibrator Standard 1 (top of curve); 20-fold Calibrator stock dilution	500,000 pg/mL
LLOD	172 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 Arginase-1 be performed using U-PLEX MULTI-SPOT® plates.

## Sample Dilution

The R-PLEX Human Arginase-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

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

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

# MSD® R-PLEX Assays

## Source

Calibrator	Native Arginase-1 purified from rat liver
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.

**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	K151Q1R
MSD GOLD Read Buffer B (90 mL)	R60AM-2	K151Q1R
MSD Wash Buffer (20X, 100 mL)	R61AA-1	-
MSD Tris Wash Buffer (10X, 200 mL)	R61TX-2	-

## Diluent Compatibility

The R-PLEX Human Arginase-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 Arginase-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	Diluent 58	R50CA	Diluent 3	R50AP
Alternate 1	Diluent 100	R50AA	Diluent 100	R50AA

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.

