

# Human ERK1/2 (total)



www.mesoscale.com<sup>®</sup>

### Ordering Information

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### Scientific Support

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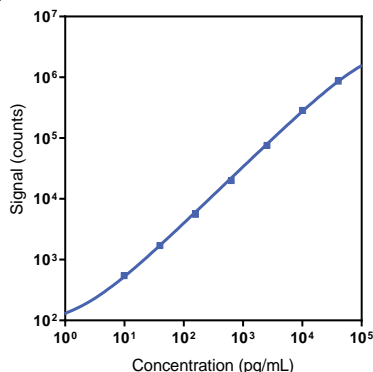
### Company Address

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

Product Options	Catalog Number	Description
Singleplex	K151AKNR-2	R-PLEX Human ERK1/2 (total) Assay with SECTOR™ plates
	K151AKNR-22	R-PLEX Human ERK1/2 (total) Assay with QuickPlex <sup>®</sup> plates
Antibody Set	F21AKN-3	R-PLEX Human ERK1/2 (total) Antibody Set
Protocol	R-PLEX Product Inserts are available at <a href="https://www.mesoscale.com">https://www.mesoscale.com</a>	

R-PLEX<sup>®</sup> 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 either MSD GOLD small spot streptavidin QuickPlex or SECTOR plates, providing a complete set of components to develop and run an assay. R-PLEX Assays with QuickPlex plates can only be read on MESO<sup>®</sup> QuickPlex Q 60MM instruments. R-PLEX Assays with SECTOR plates can be read on all MESO SECTOR<sup>®</sup> and MESO QuickPlex<sup>®</sup> SQ 120/120MM instruments.

### 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	1.4 pg/mL

Representative data using the primary diluent pair in singleplex is 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).

For developing individual assays using R-PLEX Antibody Sets or Assays, please refer to the R-PLEX Antibody Sets & Singleplex Assays product insert. For multiplex assay development using R-PLEX Antibody Sets, use the R-PLEX Antibody Sets & Multiplex Assays product insert. For multiplexing a combination of R-PLEX and U-PLEX<sup>®</sup> 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 <https://www.mesoscale.com>.

### Sample Dilution

The R-PLEX Human ERK1/2 (total) Antibody Set 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
Cell Lysate	20 µg/well

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

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

# MSD® R-PLEX Assays

## Source

<b>Calibrator</b>	Recombinant Human ERK1/2 (total) expressed in an insect cell line
<b>Antibodies</b>	Capture antibody - mouse monoclonal, detection antibody - mouse monoclonal
<b>Assay Generation</b>	A

## Recommended Assay Components

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

## Plates for Singleplex Assay Development

Plates are available in packs of 1, 5, 30, 120, and 510.

Description	Catalog No.	Included In:
MSD GOLD 96-well Small Spot Streptavidin SECTOR Plates	L45SA	K151AKNR-2
MSD GOLD 96-well Small Spot Streptavidin QuickPlex Plates	L4BSA	K151AKNR-22

## Buffers

Description	Catalog No.	Included In:
Diluent 100 (50 mL)	R50AA-4	K151AKNR
MSD GOLD Read Buffer B (90 mL)	R60AM-2	K151AKNR
MSD Wash Buffer (20X, 100 mL)	R61AA-1	-
MSD Tris Wash Buffer (10X, 200 mL)	R61TX-2	-

## Diluent Compatibility

The R-PLEX Human ERK1/2 (total) 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 ERK1/2 (total) 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 39	R5ABB	Diluent 39	R5ABB
Alternate 1	Diluent 61	R50CD	Diluent 59	R50CB

Diluents sufficient to run 40 samples per plate in duplicate with up to 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.

