

R-PLEX™ Antibody Set

Human CA50

Cat. No: F21ZY-3, 5-plate size

F21ZY-8, 50-plate size

Ordering Information

MSD Customer Service
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Scientific Support

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Company Address

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

Contents and Storage

Description

Human CA50 Calibrator, 20X	No. of vials	5	Vol. /vial	50 µL	Storage	≤-70°C
Biotin Human CA50 Capture Antibody		1		1,250 µL		2-8°C
SULFO-TAG™ Human CA50 Detection Antibody, 100X		1		375 µL		2-8°C

Note: Calibrators and antibodies are shipped separately.

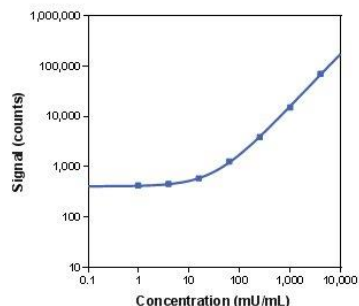
R-PLEX Antibody Sets provide an expanded menu of electrochemiluminescence assays for biomarker discovery and development. The sets include a matched biotinylated capture and SULFO-TAG conjugated detection antibody pair and calibrator for the quick and easy development of highly sensitive immunoassays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

Cancer Antigen 50 (CA50) is a carbohydrate antigen released from certain types of cancer cells. CA50 has been proposed as a marker to monitor cancer progression in colorectal and gastrointestinal cancer and it may therefore be a suitable target for research on these cancer types.

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 CA50 Antibody Set tested on MSD's U-PLEX platform using Diluent 2 as assay diluent and Diluent 3 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. (mU/mL)	LLOD (mU/mL)
4,000	6.64

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, use the R-PLEX Antibody Sets Multiplex Assays product insert. 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/R-PLEX-documents.

Sample Dilution

The R-PLEX Human CA50 assay has been tested with the following sample type(s) at the specified dilution in assay diluent.

Sample Type	Recommended Fold Dilution
Serum	20
Plasma	20
Urine	20
Cerebrospinal Fluid	20

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	Native Cancer Antigen 50
Antibodies	Capture antibody - mouse monoclonal, detection antibody - fetal calf 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: 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 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 Human CA50 Antibody Set has been tested with the following diluent pairs. The primary pair was used for generating the data shown in the Assay Performance section. Alternate diluent pairs may be considered based on the sample type or for compatibility with other assays when developing multiplexed assays.

Tested Diluent Pair	Assay Diluent		Antibody Diluent	
	Description	Catalog No.	Description	Catalog No.
Primary	Diluent 2	R51BB	Diluent 3	R51BA

To run five plates, 50 mL of assay diluent and 40 mL of antibody diluent are required when assaying samples that are diluted up to 10-fold (40 samples per plate, run in duplicate). Additional assay diluent is necessary for samples that are diluted greater than 10-fold. 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. MSD offers a range of assay and antibody diluents for separate purchase. Please view our website at www.mesoscale.com/R-PLEX for more details on compatible diluents for R-PLEX assays.

The R-PLEX Human CA50 Antibody Set is for research use only.