R-PLEX™ Antibody Set

Human GIP (active)

Cat. No: F213G-3, 5-plate size

F213G-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

Scientific Support

Phone: 1-240-314-2798
Email: ScientificSupport@mesoscale.com
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Company Address

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

www.mesoscale.com®

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

Contents and Storage

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

Note: Calibrators and antibodies are shipped separately.

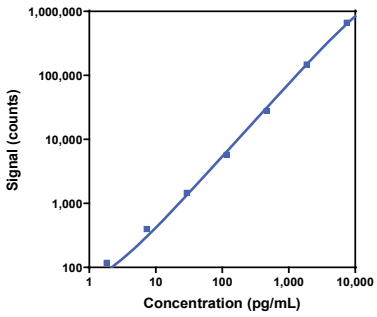
R-PLEX Antibody Sets provide an expanded menu of electrochemiluminescence assays for biomarker discovery and development. The sets include a matched biotinylated capture and SULFO-TAG conjugated detection antibody pair and calibrator for the quick and easy development of highly sensitive immunoassays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

Gastric Inhibitory Polypeptide (GIP, Glucose-dependent Insulinotropic Polypeptide, incretin) is a glucose-dependent, insulinotropic peptide. GIP is synthesized by enteroendocrine K cells in the duodenal and jejunal mucosa and is secreted into plasma in response to nutrient flow through the small intestine. GIP protects the small intestine from acid damage. Applications that exploit GIP activity to regulate glucose homeostasis are under investigation. GIP (active) is the 1-42 protein.

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 GIP (active) Antibody Set tested on MSD's U-PLEX platform using Diluent 13 as assay diluent and Diluent 12 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 if testing in a multiplexed format.



Top-of-Curve Conc. (pg/mL)	LLOD (pg/mL)
7,500	1.9

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 GIP (active) Antibody Set has been tested with the following sample type(s) at the specified dilution in assay diluent.

Sample Type	Recommended Fold Dilution
Serum	2
Plasma	2

We recommend performing a dilution series and testing for diluent compatibility when measuring a different sample type.

Note: Samples should be collected using BD P800 Blood Collection and Preservation System which contains DPP-IV and other protease inhibitors. If not using P800 tubes, add a DPP-IV inhibitor to a final concentration of 0.1 mM.

R-PLEX Antibody Set

Source

Calibrator	Synthetic Human GIP (active)
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: 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 Packs include 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 GIP (active) 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 13	R56BB	Diluent 12	R50JA
Alternate 1	Diluent 43	R50AG	Diluent 3	R51BA
Alternate 2	Diluent 7	R54BB	Diluent 11	R55BA
Alternate 3	Diluent 101	R51AD	Diluent 37	R50AF

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 GIP (active) Antibody Set is for research use only.