# Magnetic Luminex® Performance Assay Human TFF3 Kit

**Catalog Number:** LHK4407
**Pack Size:** 100 Tests

## SPECIFICATIONS AND USE

**Recommended Sample Types**
- Serum, EDTA plasma, heparin plasma, and urine.

**Microparticle Region**
- Region-30

**Components**
- Microparticle Concentrate (Part 894310) is supplied as a 100X concentrated stock (0.075 mL) with preservatives.
- Biotin-Antibody Concentrate (Part 894321) is supplied as a 100X concentrated stock solution (0.075 mL) with preservatives.

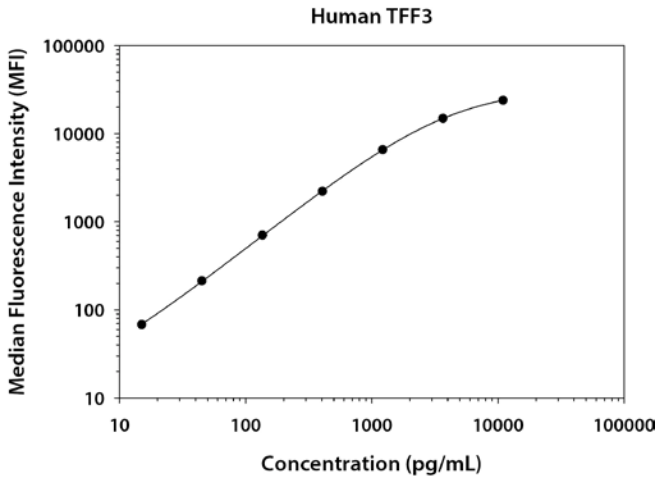
**Other Supplies Required**
- Magnetic Luminex Performance Assay Human Kidney Biomarker Base Kit (Catalog Number LHK000).

**Storage**
- Store the unopened kit at 2-8 °C. Do not use past the expiration date on the label.
- **Avoid freezing microparticles.**
- **Protect microparticles from light.**

**Instructions for Use**
- Refer to the Base Kit insert for the Magnetic Luminex Performance Assay procedure.

## TYPICAL DATA

This human TFF3 standard curve is provided only for demonstration. A standard curve must be generated each time an assay is run, utilizing values from the Standard Value Card included in the Base Kit.




| Standard | pg/mL | MFI | Average | Corrected |
|---|---|---|---|---|
| Blank | 0 | 29<br>29 | 29 | —— |
| 1 | 11,000 | 23,999<br>24,040 | 24,020 | 23,991 |
| 2 | 3667 | 14,865<br>14,959 | 14,912 | 14,883 |
| 3 | 1222 | 6565<br>6674 | 6620 | 6591 |
| 4 | 407 | 2220<br>2273 | 2247 | 2218 |
| 5 | 136 | 723<br>740 | 732 | 703 |
| 6 | 45 | 237<br>246 | 242 | 213 |
| 7 | 15 | 97<br>97 | 97 | 68 |

## PERFORMANCE CHARACTERISTICS

**All data were collected with assays run as a multiplex.**

**Sensitivity** - The Minimum Detectable Dose (MDD) was determined by adding two standard deviations to the mean MFI of twenty zero standard replicates and calculating the corresponding concentration.

Thirty-two assays were evaluated, and the MDD of human TFF3 ranged from 0.231-11.5 pg/mL. The mean MDD was 1.27 pg/mL.



**R&D Systems, Inc.**
**1-800-343-7475**

**Intra-assay Precision (precision within an assay)** - Three samples of known concentration were tested twenty times on one plate to assess precision within an assay.
**Inter-assay Precision (precision between assays)** - Three samples of known concentration were tested in separate assays to assess precision between assays. Assays were performed by at least three technicians using two lots of components.

| | Intra-assay Precision | | | | Inter-assay Precision | | |
|---|---|---|---|---|---|---|---|
| Sample | 1 | 2 | 3 | | 1 | 2 | 3 |
| n | 20 | 20 | 20 | | 70 | 68 | 70 |
| Mean (pg/mL) | 68.1 | 433 | 2750 | | 69 | 440 | 2696 |
| Standard Deviation | 2.54 | 3.7 | 56.8 | | 7.53 | 29.0 | 175 |
| % CV | 3.7 | 0.9 | 2.1 | | 10.9 | 6.6 | 6.5 |

**Linearity** - Samples containing and/or spiked with high concentrations of TFF3 were serially diluted to evaluate assay linearity.

| | | Serum (n=4) | EDTA plasma (n=4) | Heparin plasma (n=4) | Urine (n=4) |
|---|---|---|---|---|---|
| 1:2 | Average % of Expected | 91 | 96 | 101 | 103 |
| | Range (%) | 88-92 | 95-98 | 100-102 | 96-107 |
| 1:4 | Average % of Expected | 90 | 90 | 106 | 101 |
| | Range (%) | 87-93 | 88-92 | 105-107 | 93-105 |
| 1:8 | Average % of Expected | 93 | 83 | 104 | 90 |
| | Range (%) | 92-96 | 80-86 | 101-106 | 85-92 |

**Specificity** - This assay recognizes natural and recombinant human TFF3. The assay was tested for cross-reactivity and interference with the following factors. Less than 0.5% cross-reactivity and interference was observed.

**Recombinant human:**
ApoA1
ApoA2
ApoB
ApoB100
ApoC1
ApoC2
ApoD
ApoE
ApoH
ApoM
Cathepsin A
Cathepsin B
Cathepsin C
Cathepsin D
Cathepsin E
Cathepsin F
Cathepsin L
Cathepsin O
Cathepsin S
Cathepsin V
Cathepsin Z
CCL2/MCP-1
CCL5/RANTES
Cystatin A
Cystatin B
Cystatin E/M
Cystatin F
Cystatin S
Cystatin SA
Cystatin SN
Clusterin-like 1
COX-2
CRP
CXCL1/GROα
CXCL2/GROβ
CXCL3/GROγ
CXCL5/ENA-78
CXCL6/GCP-2
CXCL7/NAP-2
CXCL8/IL-8
CXCL9/MIG
CXCL11/I-TAC
CXCL12/SDF-1
CXCL13/BLC/BCA-1
Enterokinase
Fetuin B
Fibronectin
HAI-1
HAI-2
HGF R/c-MET
HGF Activator
HPRG
IFN-γ
Lipocalin-1
MMP-3
MMP-7
MMP-9
MSP
Plasminogen
Serpin A1
TIM-3
TIM-4
TFF-1
TFF-2
Thrombin

**Recombinant mouse:**
Clusterin
Cystatin C
CXCL10/IP-10/CRG-2
HGF
Lipocalin-2/NGAL
Osteopontin (OPN)
TIM-1/KIM-1/HAVCR

**Recombinant rat:**
Clusterin
Fetuin A
TIM-1/KIM-1/HAVCR

**Other recombinants:**
bovine Osteopontin

**Natural human proteins:**
α1-Acid Glycoprotein
Kininogen

**Recombinant human multiplex partners:**
Clusterin
Cystatin C
Lipocalin-2/NGAL
Osteopontin (OPN)
CXCL10/IP-10
HGF
Fetuin A
RBP4
TIM-1/KIM-1/HAVCR

## TECHNICAL HINTS

- Protect the microparticles and streptavidin-PE from light at all times.
- Refer to the Base Kit Standard Value Card for reconstitution volume and values of the reconstituted standard.
- Diluted microparticles cannot be stored. Make a fresh dilution of microparticles each time the assay is run.
- The use of a magnetic device made to accommodate a microplate is necessary for washing.
- Discrepancies may exist in values obtained for the same analyte utilizing different technologies.

Luminex Performance Assays afford the user the benefit of multianalyte analysis of biomarkers in a complex sample. A single, multipurpose diluent is used to optimize recovery, linearity, and reproducibility. Such a multipurpose diluent may not optimize any single analyte to the same degree that a unique diluent selected for analysis of that analyte can optimize conditions. Therefore, some performance characteristics may be more variable than those for assays designed specifically for single analyte analysis.