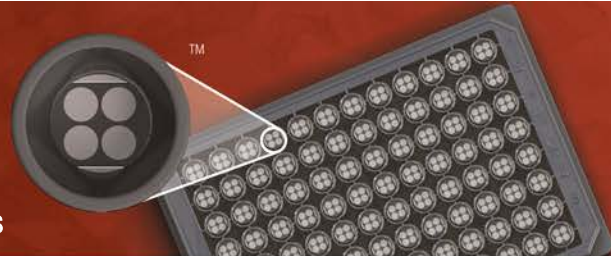


MSD[®] Human TRAIL Kit

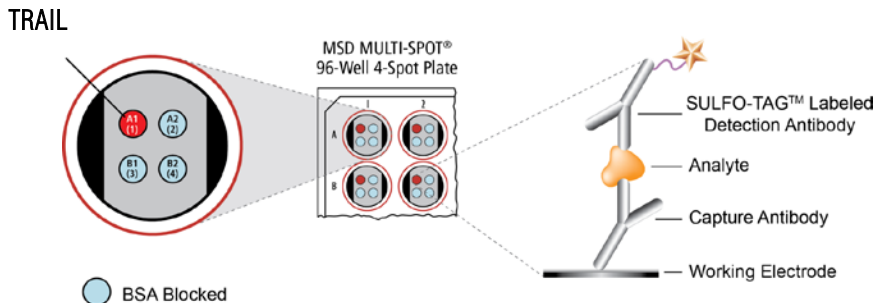
For quantitative determination in human serum, plasma, and tissue culture supernatants



Alzheimer's Disease
BioProcess
Cardiac
Cell Signaling
Clinical Immunology
Cytokines
Growth Factors
Hypoxia
Immunogenicity
Inflammation
Metabolic
Oncology
Toxicology
Vascular

Catalog Numbers

Human TRAIL Kit	
Kit size	
1 plate	K151KXD-1
5 plates	K151KXD-2
25 plates	K151KXD-4



TNF-related apoptosis inducing ligand (TRAIL), is a 19.6 kDa cytokine which activates rapid apoptosis in transformed normal and tumor cells by binding to two death-signaling receptors, DR4 (TRAIL-R1) and DR5 (TRAIL-R2).¹ TRAIL is expressed as a type-II TNF family transmembrane protein, but its extracellular domain can be released as a soluble cytokine upon proteolytic cleavage and commonly exists as a homotrimer. TRAIL is produced in a wide spectrum of tissues, including spleen, thymus, prostate, lung, kidney, and intestine.²

TRAIL has emerged as a promising candidate for cancer therapy, on the basis of its unique ability to trigger apoptosis in various types of cancer cells without significant toxicity toward normal cells. The mechanism by which TRAIL induces apoptosis involves the formation of DISC (death inducing signaling complex) and activation of caspase-8, NFkappaB, and Bid, key regulators of increased inflammation and the apoptotic pathway.¹⁻³

The MSD Human TRAIL assay is available on 96-well 4-spot plates. This datasheet outlines the performance of the assay.

Ordering information

MSD Customer Service
Phone: 1-301-947-2085
Fax: 1-301-990-2776
Email: CustomerService@mesoscale.com

Assay Sensitivity

LLOD (pg/mL)	TRAIL
	4.5

The lower limit of detection (LLOD) is a calculated concentration based on a signal 2.5 standard deviations above the blank (zero) calibrator.

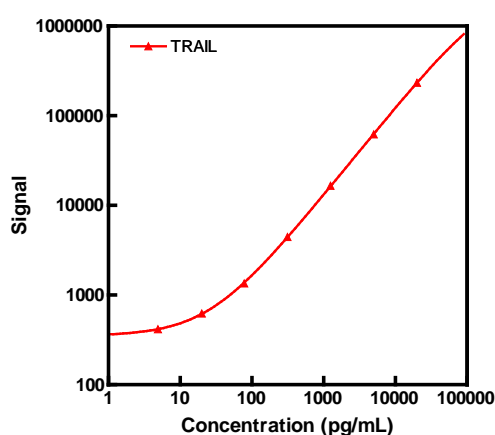
Company Address

MESO SCALE DISCOVERY[®]
division of
Meso Scale Diagnostics, LLC.
9238 Gaithers Road
Gaithersburg, MD 20877 USA

www.mesoscale.com[®]

Typical Standard Curve

The following standard curve is an example of the wide dynamic range of the Human TRAIL assay.



Conc. (pg/mL)	TRAIL	
	Average Signal	%CV
0	315	8.4
4.9	415	10.6
20	623	8.9
78	1350	4.7
313	4436	4.1
1250	16 545	5.5
5000	61 900	3.7
20 000	233 031	1.5

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

MSD Cytokine Assays

MSD Advantage

- **Multiplexing:** Multiple analytes can be measured in one well without compromising speed or performance
- **Large dynamic range:** Linear range of up to five logs enables the measurement of native levels of biomarkers in normal and diseased samples without multiple dilutions
- **Minimal background:** The stimulation mechanism (electricity) is decoupled from the signal (light)
- **Simple protocols:** Only labels near the electrode surface are detected, enabling no-wash assays
- **Flexibility:** Labels are stable, non-radioactive, and conveniently conjugated to biological molecules
- **High sensitivity and precision:** Multiple excitation cycles of each label enhance light levels and improve sensitivity

For a complete list of products, please visit our website at www.mesoscale.com.

References

1. Gonzalez F, Ashkenazi A. New insights into apoptosis signaling by Apo2L/TRAIL. *Oncogene*. 2010 Aug 26;29(34):4752-65.
2. Abdulghani J, El-Deiry WS. TRAIL receptor signaling and therapeutics. *Expert Opin Ther Targets*. 2010 Oct;14(10):1091-108.
3. Pitti RM, Marsters SA, Ruppert S, Donahue CJ, Moore A, Ashkenazi A. Induction of apoptosis by Apo-2 ligand, a new member of the tumor necrosis factor cytokine family. *J. Biol. Chem*. 1996 271:12687-12690.

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