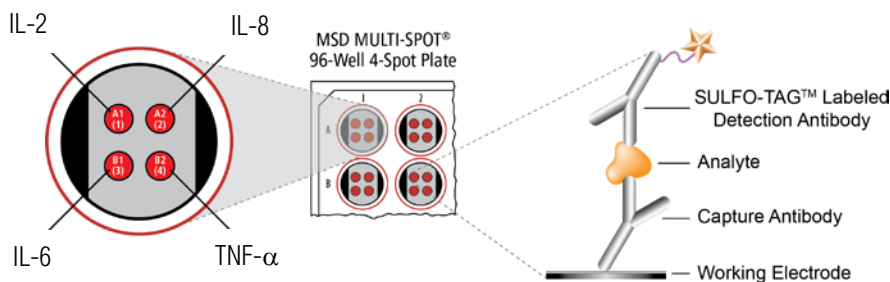


# MSD® Canine ProInflammatory Panel 3 Ultra-Sensitive Kit

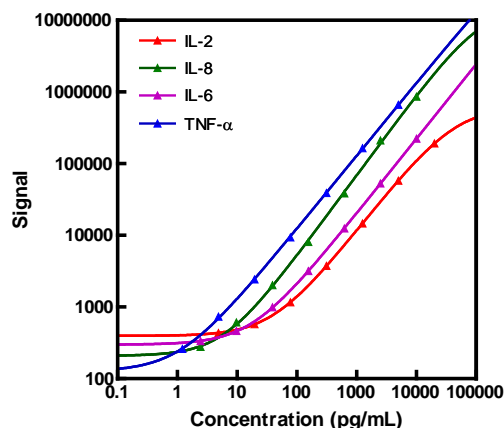
For quantitative determination in canine serum and plasma



Cytokines are immunomodulating agents mediating a number of physiological responses, including immunity, inflammation, and a variety of pathophysiological conditions. In disease states, the circulating levels of cytokines are altered, making them valuable biomarkers that can be associated with many clinical conditions. MESO SCALE DISCOVERY® offers a wide range of cytokine assays in singleplex and multiplex formats. The Canine ProInflammatory Panel 3 Ultra-Sensitive Kit can be used to simultaneously assess the levels of 4 cytokines in serum and plasma samples; it may also be used with sputum, bronchial lavage, wound fluids, urine, and other biological samples. Tissue culture kits are available for cell supernatant samples. Visit [www.mesoscale.com](http://www.mesoscale.com) for a complete list of human, rodent, canine, bovine, and non-human primate assays.

## Assay Sensitivity

The following standard curves illustrate the dynamic range of the assays in the Canine ProInflammatory Panel 3 Ultra-Sensitive Kit.



	IL-2	IL-8	IL-6	TNF-α
LLOD (pg/mL)	7.6	1.3	2.4	0.17

The lower limit of detection (LLOD) is a calculated concentration based on a signal 2.5 standard deviations above the blank (zero) calibrator. The values shown represent the average LLOD over multiple kit lots.

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

## Catalog Numbers

Canine ProInflammatory Panel 3 Ultra-Sensitive Kit	
Kit size	
1 plate	K15035C-1
5 plates	K15035C-2
25 plates	K15035C-4

## Ordering information

MSD Customer Service  
Phone: 1-301-947-2085  
Fax: 1-301-990-2776  
Email: [CustomerService@mesoscale.com](mailto:CustomerService@mesoscale.com)

## Company Address

MESO SCALE DISCOVERY®  
A division of  
Meso Scale Diagnostics, LLC.  
9238 Gaither Road  
Gaithersburg, MD 20877 USA

[www.mesoscale.com](http://www.mesoscale.com)®

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

## MSD Advantages

- **Multiplexing:** Multiple analytes can be measured in one well using typical sample volumes of 25 µL or less 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 assays with fewer washes
- **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](http://www.mesoscale.com)

# MSD Cytokine Assays

## Spike Recovery

Normal pooled beagle and mongrel serum and plasma samples were spiked with calibrator at multiple values throughout the range of the assay. (Low range = 31–125 pg/mL; Mid range = 125–500 pg/mL; High range = 500–2000 pg/mL). Each sample was run in triplicate.

% Recovery = measured / expected x 100

Sample Type	Level	Average % Recovery			
		IL-2	IL-6	IL-8	TNF- $\alpha$
Beagle Serum	Low	105	97	95	94
	Mid	105	92	100	92
	High	101	92	113	108
Beagle Plasma	Low	92	93	102	91
	Mid	90	90	106	89
	High	89	91	102	99
Mongrel Serum	Low	107	89	82	94
	Mid	103	82	81	88
	High	100	76	88	97
Mongrel Plasma	Low	94	87	97	89
	Mid	101	96	101	91
	High	97	90	95	101

## Linearity:

Dilution linearity was tested by spiking calibrators in different matrices and conducting 2-fold dilutions.

% Recovery = measured x dilution factor / expected x 100

Sample Type	Fold Dilution	% Recovery			
		IL-2	IL-6	IL-8	TNF- $\alpha$
Beagle Serum	2	103	90	86	77
	4	99	102	95	94
	8	96	97	101	98
Beagle Plasma	2	97	85	89	77
	4	104	97	93	94
	8	98	97	99	97
Mongrel Serum	2	100	87	89	80
	4	97	99	97	94
	8	96	97	101	95
Mongrel Plasma	2	102	87	87	77
	4	99	91	94	93
	8	99	101	101	100

## Samples

The average endogenous levels of canine cytokines detected in beagle and mongrel serum and plasma are shown below.

Sample Type	Average Concentration (pg/mL)			
	IL-2	IL-6	IL-8	TNF- $\alpha$
Beagle Serum	<LLOD	6.8	2055	<LLOD
Beagle Plasma	19	111	16	<LLOD
Mongrel Serum	<LLOD	33	458	<LLOD
Mongrel Plasma	<LLOD	12	963	<LLOD

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