Meso Scale Diagnostics, LLC.

CERTIFICATE OF ANALYSIS

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Product Description:	V-PLEX® and V-PLEX Plus Mouse TNF- α Kit
Kit Catalog Numbers:	K152QW-Series
Kit Lot Number:	K0080836
Expiration Date:	31 Mar 2019

Acceptance Data/ Percent Recovery Specifications:

		Calibrator		Proinflammatory Panel 1 (Mouse) Control 1		Proinflammatory Panel 1 (Mouse) Control 2		Proinflammatory Panel 1 (Mouse) Control 3	
Spot	Name	Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	ms TNF-α	80% - 120%	< 20%	75% - 125%*	< 25%	75% - 125%*	< 25%	75% - 125%*	< 25%

* See Additional Comments.

		LLOQ			ULOQ		
Spot	Name	Value Recovery		CV	Value	Recovery	CV
1	ms TNF-α	0.980	75% - 125%	< 25%	403	75% - 125%	< 25%

Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
		Calibrator	653	pg/mL
1	ma TNE a	Proinflammatory Panel 1 (Mouse) Control 1	140	pg/mL
1	ms TNF-α	Proinflammatory Panel 1 (Mouse) Control 2		pg/mL
		Proinflammatory Panel 1 (Mouse) Control 3	5.12	pg/mL

Controls tested may not be the same lot as shipped.

Standard Curve Data:

ms TNF-α - Spot 1					
Conc. pg/mL	ECL Signal	%CV			
653	194,000	2.7			
163	45,700	1.8			
40.8	10,900	2.9			
10.2	2,780	2.5			
2.55	815	2.0			
0.638	288	3.5			
0.159	161	2.8			
0.00	116	3.4			

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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Mouse TNF-a Plate	Z0046554	2-8°C	30 Nov 2019
Anti-ms TNF-α Antibody	D0080787	2-8°C	31 Mar 2019
Proinflammatory Panel 1 (mouse) Calibrator Blend	A0080110	2-8°C	31 Dec 2021
Diluent 41	M0410017	\leq -10°C	31 Oct 2019
Diluent 45	M0450018	\leq -10°C	30 Nov 2019
MSD Read Buffer T	Not Kit Specific	Not Kit Specific	N/A

Additional Components Included in V-PLEX Plus				
Plate Seals	Not Kit Specific			
Wash Buffer (20x), 100mL	Not Kit Specific			
Proinflammatory Panel 1 (Mouse) Control 1	Not Kit Specific			
Proinflammatory Panel 1 (Mouse) Control 2	Not Kit Specific			
Proinflammatory Panel 1 (Mouse) Control 3	Not Kit Specific			

Additional Comments:

	Assay	Spot	Specification	Comment
1	ms TNF-α	1	Control Conc.	The observed % Recovery for Control 1 was 139.8% and for Control 2 was 135.3%.

Statement:

The above product is intended for Research Use Only. Not for use in Diagnostic Procedures.

	Name	Function	Signature	Date
Review/Approval	Vanessa Castleberry	Quality Assurance	Vanessa Castlebury	31JUL2017