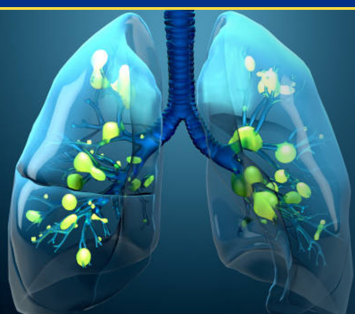


DZ-LITE MMP-1 AND MMP-7 CLIA KITS



Published studies show that Idiopathic pulmonary fibrosis (IPF) is assumed to be caused by aberrant tissue repair and remodeling following recurrent alveolar epithelial injury leading to a persistent and progressive disordered fibroproliferation¹. Matrix metalloproteinases (MMP) belong to the zinc dependent endoproteases that participate in extracellular matrix remodeling, wound healing, and angiogenesis and have been implicated in the pathogenesis of IPF². These studies also find that MMP family expression are highly upregulated in IPF lungs.

DIAZYME DZ-LITE MMP-1 CLIA KIT ADVANTAGES

- Fully automated chemiluminescent immunoassay
- Highly sensitive with LOQ level of 0.122 ng/mL
- Wide dynamic ranges up to 15 ng/mL
- Good correlations with ELISA method: $R^2 > 0.86$
- High throughput: Up to 150 tests/hour

DIAZYME DZ-LITE MMP-7 CLIA KIT ADVANTAGES

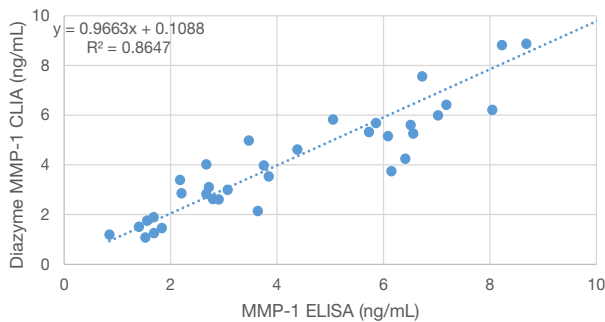
- Fully automated chemiluminescent immunoassay
- Highly sensitive with LOQ level of 0.182 ng/mL
- Wide dynamic ranges up to 30 ng/mL
- Good correlations with ELISA method: $R^2 > 0.94$
- High throughput: Up to 150 tests/hour

REGULATORY STATUS

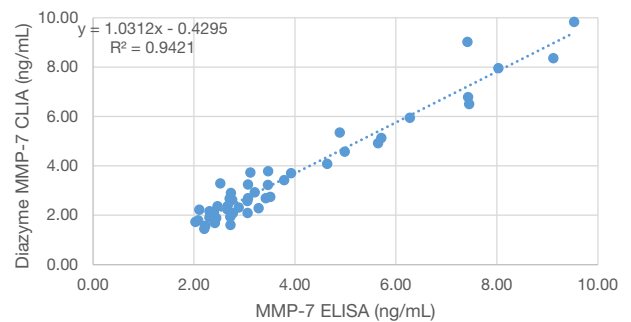
USA: Research Use Only. Not For Use in Diagnostic Procedures.

DZ-LITE MMP-1 AND MMP-7 CLIA KITS

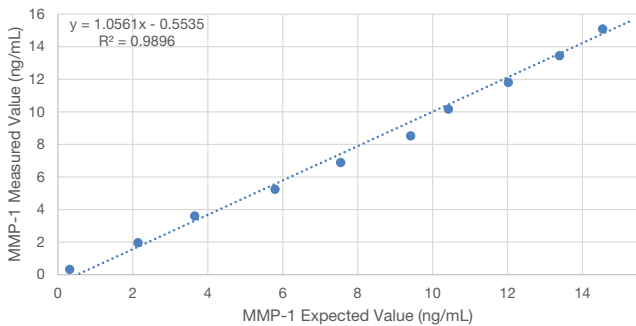
MMP-1 METHOD COMPARISON



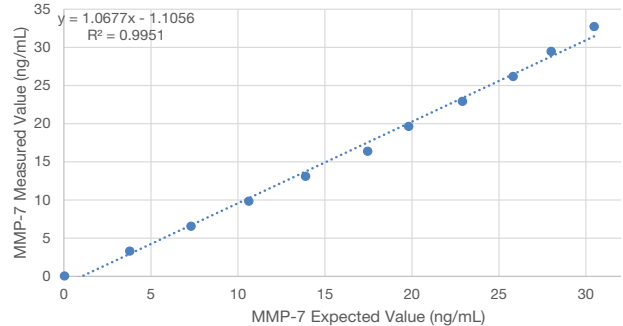
MMP-7 METHOD COMPARISON



MMP-1 LINEARITY



MMP-7 LINEARITY



ASSAY SPECIFICATION

Assay	MMP-1	MMP-7
Method	Immunochemiluminescent	Immunochemiluminescent
Sample Type & Volume	<ul style="list-style-type: none"> Plasma (Li-heparin) 100 µL 	<ul style="list-style-type: none"> Plasma (Li-heparin) 100 µL
Method Correlation	N = 49 Y = 0.1088 Slope = 0.9663 R² = 0.8647	N = 49 Y = -0.4295 Slope = 1.0312 R² = 0.9421
Linearity	Up to 15 ng/mL	Up to 30 ng/mL
LOQ	0.122 ng/mL	0.182 ng/mL
Calibration Levels	2-Point Calibration	2-Point Calibration
Throughput	Up to 150 test/hr	Up to 150 test/hr

ASSAY PRECISION

The precision of the Diazyme DZ-Lite MMP-1 and MMP-7 CLIA kits were evaluated according to Clinical Laboratory Standards Institute (CLSI) EP5-A2 guideline.

	MMP-1		MMP-7	
	Level 1	Level 2	Level 1	Level 2
Mean (ng/mL)	2.123	6.063	1.97	5.064
Within-Run SD (ng/mL)	0.097	0.244	0.119	0.201
Within-Run CV (%)	4.579	4.027	6.034	3.971
Total SD (ng/mL)	0.103	0.24	0.117	0.971
Total CV (%)	4.832	3.951	5.916	3.891

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References

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- E. Vasarmid *EXPERIMENTAL AND THERAPEUTIC MEDICINE* 20: 2557-2560, 2020