



## CERTIFICATE OF ANALYSIS

### CTS™ VITRONECTIN (VTN-N) RECOMBINANT HUMAN PROTEIN IN PARTNERSHIP WITH CDI™

Catalog Number: CTS279S3  
Lot Number: D1-042110G  
Manufacturing Date: 2021-10-06  
Expiry Date: 2024-09-26  
CoA Issue No.: 498

Volume: 1 mL

Storage temperature: -70 ± 10 °C

Composition: 20 mM K<sub>2</sub>HPO<sub>4</sub> 20 mM KH<sub>2</sub>PO<sub>4</sub> pH 7.40 (NaOH), 135 mM NaCl, 15 mM KCl, 0.5 mM EDTA, 150 mM L-Arginine, 250 mM Acetyl-L-cysteine, 20% (v/v) Glycerol, DNA-free WMB

For Research Use or Manufacturing of Cell, Gene, or Tissue-Based Products.

CAUTION: Not intended for direct administration into humans or animals.

Testing is listed in alphabetical order

PARAMETER	SPECIFICATION	RESULT	UNIT
<sup>1</sup> Biological activity	Concentration of Test sample at which half maximal attachment of BALB/3T3 cells in serum-free medium is observed (ED <sub>50</sub> ) ≤1.000 µg/ml	0.539	µg/ml
	Ratio of ED <sub>50</sub> values between IRS and Test samples: 55.00-145.00 %	107.46	%
<sup>2</sup> Color and clarity	Color: not more intense than Y6 (Yellow palette) Clarity: <30 NTU	Conforms 3	NTU
<sup>3</sup> Concentration	0.81-0.99 mg/ml	0.98	mg/ml
<sup>4</sup> Endotoxins	< 25 EU/mg protein	Conforms	
<sup>5</sup> Host cell gDNA	<100.00 pg/mg (LOQ – 12 pg/mg)	< LOQ	(LOQ – 12 pg/mg)
<sup>6</sup> Identity by RP-HPLC	The intact protein chromatographic profiles of the Sample solution are similar to those of the IRS	Conforms	
<sup>7</sup> Identity by SDS-PAGE	Main band of the test sample corresponds to position of the main band of IRS (≈55 kDa)	Conforms	
<sup>8</sup> Mycoplasmas	<LOD (LOD – 10 CFU/ml)	Conforms	
<sup>9</sup> pH	7.4 (7.0 – 7.8)	7.4	
<sup>10</sup> Purity by RP-HPLC	> 95.0 %	98.6	%
<sup>11</sup> Sterility	No growth	Conforms	



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CoA is issued by

Quality Assurance Department

Signature

Date

CoA is verified and approved by

Quality Assurance Manager

Signature

Date

### REFERENCES:

<sup>1</sup>Biological activity: Thermo Fisher Scientific Baltics, In-house method.

<sup>2</sup>Color and clarity: Color: acc. Ph. Eur. 2.2.2. Degree of coloration of liquids. Method I. Clarity: acc. Ph. Eur. 2.2.1. Clarity and degree of opalescence of liquids", Instrumental method.

<sup>3</sup>Concentration, <sup>6</sup>Identity, <sup>10</sup>Purity: Thermo Fisher Scientific Baltics, In-house method.

<sup>4</sup>Endotoxin testing: USP <85> Bacterial Endotoxins and Ph. Eur. 2.6.14. Bacterial endotoxins. Method A. Gel-clot method: limit test.

<sup>5</sup>Host cell gDNA: Contract Laboratory, In-house method.

<sup>7</sup>Identity by SDS-PAGE: Thermo Fisher Scientific Baltics, In-house method.

<sup>8</sup>Mycoplasmas: Contract Laboratory, In-house method.

<sup>9</sup>pH: USP <791> pH and Ph. Eur. 2.2.3. Potentiometric determination of pH.

<sup>11</sup>Sterility: Contract Laboratory, Ph. Eur. 2.6.1. Sterility and USP/NF <71> Sterility Test.