

## Pen peptide certificate of analysis (CoA)

<b>Product:</b>	<b>Thymogen</b>		
<b>Source:</b>	Hybrid synthesis (recombinant using peptide secretion system and chemical synthesis)		
<b>Intended use:</b>	For stability, viability and activity testing only.		
<b>Order number:</b>		<b>Lot:</b>	25AUG25TMG
<b>Production:</b>	08/2025	<b>Expiry:</b>	08/2027
<b>Formulation:</b>	0.2 µm-filtered solution in 20mM glycine, 200mM Mannitol, 20mM NaH <sub>2</sub> PO <sub>4</sub> , pH 7.4; m-cresol 1 mg/ml, glycerol 2 mg/ml (when liquid)		
<b>Protein/peptide concentration per 3 ml cartridge:</b>	30 mg		

<b>Release Testing:</b>	<b>Specification</b>	<b>Lot Result</b>
<b>Purity:</b>	≥ 97%	> 98%
<b>Identity:</b>	Complies	Complies
<b>Sterility:</b>	Sterile	Complies
<b>Endotoxin level:</b>	< 10 EU/mg	< 0.20 EU/mg
<b>Host-cell DNA</b>	≤ 200 ng/mg	Complies (1.1 ng/mg)

Activity was determined using in vitro test.

Purity was determined by HPLC.

Identity was confirmed by end-of-production DNA sequencing and N-terminal protein sequencing.

Sterility test of vial product was performed according to Eur.Pharm. (Inoculation method).

Endotoxin was determined using the gel clot assay according to Eur.Pharm.

Host-cell DNA/RNA was determined using fluorimetric assay (if applicable).

### **Handling Instructions:**

**General usage:** Open cap, clean the rubber stopper with disinfectant napkin or other cleaning disinfection method / material. Puncture rubber stopper with sterile needle by screwing needle on. Remove the plastic protective cover. Set the index to physician prescribed position, remove the pink plastic cover and let out the air from the cartridge by several button presses into the air. Put on the plastic protective cover back.

**Using liquid product:** Liquid products are ready to use according to physician recommendations.

**Storage and stability:** Store material at +2 - +8°C. **Do not freeze!**

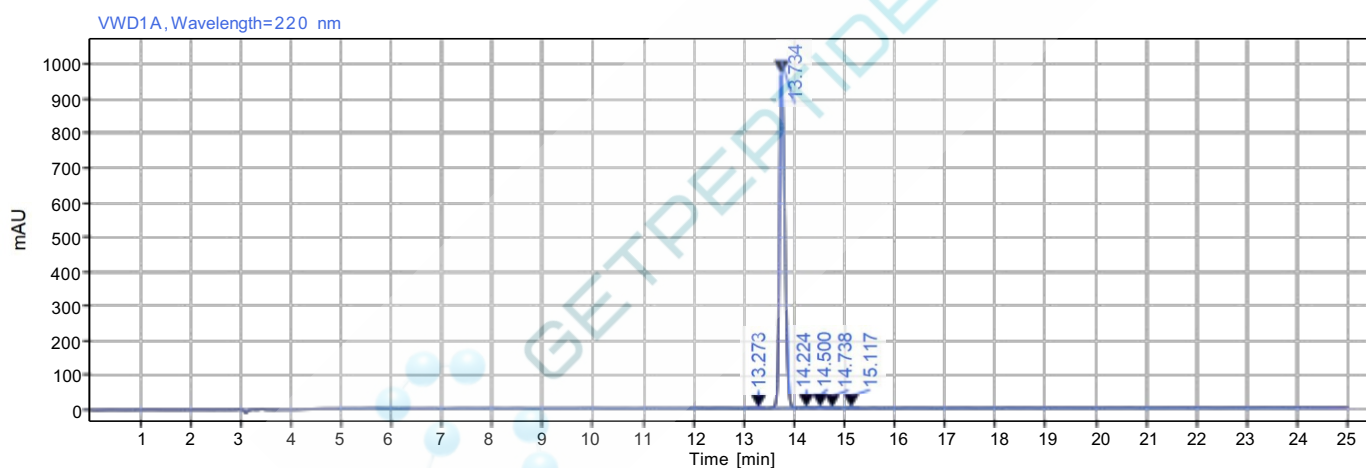
### **Quality Statement:**

This product is manufactured, tested and realized in compliance with the relevant GMP-guidelines. No animal- or human-derived materials were used during manufacturing. USP chapter <1043> “ancillary materials for cell, gene, and tissue-engineered product” has been considered in the design of this product.

# Single Injection Report



**Data file:** 2025-08-25 12-23-24+08-00-13.dx  
**Sequence Name:** Thymogen **Project Name:** A  
**Sample name:** Thymogen **Operator:** System  
**Instrument:** Agilent1260 **Injection date:** 2025-08-25 12:24:06+08:00  
**Inj. volume:** 2.000 **Location:** P2-B5  
**Acq. method:** 10-35.amx **Type:** Sample  
**Processing method:** GC\_LC\_DefaultMethod.pmx **Sample amount:** 0.00  
**Manually modified:** Manual Integration



Signal: VWD1A, Wavelength=220 nm

RT [min]	Type	Width [min]	Area	Height	Area%	Name
13.273	MM m	0.42	12.86	0.88	0.18	
13.734	MM m	0.56	7274.10	968.30	99.23	
14.224	MM m	0.27	11.15	1.61	0.15	
14.500	MM m	0.27	20.24	2.74	0.28	
14.738	MM m	0.26	2.76	0.40	0.04	
15.117	MM m	0.30	9.40	1.39	0.13	
<b>Sum</b>			<b>7330.52</b>			

# MASS SPECTROMETRY REPORT



**Sample Description**

Analyzed date: 2025-08-25  
 Analyst: PY  
 Sample: Thymogen  
 M.W.: 333.34  
 Lot. No.: 20250825

**Instrument**

Waters ZQ2000  
 Probe: ESI  
 Nebulizer Gas Flow: 1.5L/min  
 CDL: -20.0v  
 CDL Temp.: 250 °C  
 Block Temp.: 200 °C

**Probe Bias:**

+4.5kv

**Detector:**

1.5kv

**T. Flow:**

0.2ml/min

**B. Conc.:**

50%H2O/50%ACN

