

## CERTIFICATE OF ANALYSIS

**Catalog #:** VTI610 **Lot #:** M44516023

**Description:** Hepatitis B Virus Core antigen, Recombinant  
Entire Hepatitis B core protein (183 amino acids) is approximately 19 kDa. The antigen solution is a colorless, clear to opalescent solution.

**Source:** *Pichia pastoris*  
Product manufactured in the United States using materials processed in U.S. facilities. No materials of animal origin.

**Format:** Purified, Liquid **Exp. Date:** 11 NOV 2027

**Protein Concentration:** 260/280nm Assay:  
Acceptable Range: 1.0 – 2.0 mg/ml **DOM:** 11 NOV 2022  
Testing Results: 1.55 mg /mL

**Purity:** SDS-PAGE must demonstrate a major band migrating between 18.2 kDa and 25 kDa.  
Testing Results: Pass  
  
≥ 95% Nucleocapsid, performed by SEC-HPLC.  
Testing Results: Pass  
Testing Results (HPLC Printout) Attached  
  
Immunospecificity verified by Western Blot.

**Buffer:** 0.02M Potassium Phosphate, pH 6.2 – 6.8

**Preservative:** None

**Applications:** Each laboratory should determine an optimum working titer for use in its particular application

**Storage:** Store at ≤ -65°C. Avoid multiple freeze/thaw cycles.

**Safety Note(s):** Refer to the appropriate Safety Data Sheet (SDS) for additional information

Quality Signature:



22 November 2022

**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

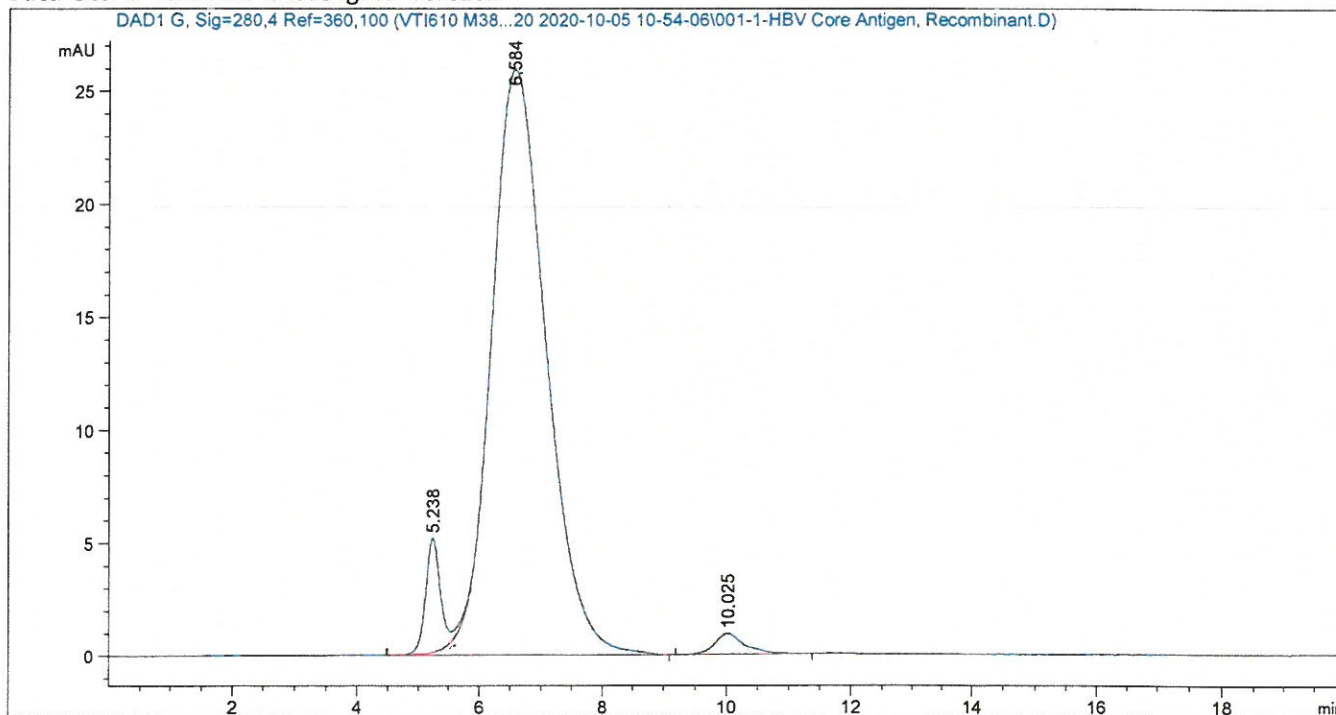
Data File C:\Chem32\...\M38492020 2020-10-05 10-54-06\001-1-HBV Core Antigen, Recombinant.D  
Sample Name: HBV Core Antigen, Recombinant

```
=====
Acq. Operator   : Studaway, Michael          Seq. Line :    1
Acq. Instrument : 20152785                  Location  :    1
Injection Date  : 10/5/2020 10:55:11 AM      Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : C:\Chem32\1\Data\VTI610 M38492020 2020-10-05 10-54-06\HBV Core VTI610.M
Last changed    : 10/5/2020 10:54:07 AM by Studaway, Michael
Analysis Method : C:\Chem32\1\Data\VTI610 M38492020 2020-10-05 10-54-06\HBV Core VTI610.M (
                  Sequence Method)
Last changed    : 10/5/2020 11:45:18 AM by Studaway, Michael
Method Info     : G5000PW for HBV Analysis,
                  Dilute Samples to 0.5mg/ml, Inject 25ul

Sample Info     : HBV Core Antigen, Recombinant
                  VTI610 Lot: M38492020
                  Diluted to 0.5mg/mL
=====
```

Data Store Server: <http://mem-agilent/>  
Data Store Operator: Studaway, Michael  
Data Store Path : /QC Lab/HPLC 20152785/Data/VTI610 M38492020 2020-10-05 10-54-06.SC.SSIzip  
Data Store Version: Unassigned version



=====  
Area Percent Report  
=====

```
Sorted By      :      Signal
Multiplier     :      1.0000
Dilution       :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: DAD1 G, Sig=280,4 Ref=360,100

| Peak # | RetTime [min] | Type | Width [min] | Area [mAU*s] | Height [mAU] | Area %  |
|--------|---------------|------|-------------|--------------|--------------|---------|
| 1      | 5.238         | BV E | 0.2633      | 87.73057     | 5.03508      | 5.0859  |
| 2      | 6.584         | VB R | 0.9551      | 1605.84753   | 25.90920     | 93.0946 |
| 3      | 10.025        | BB   | 0.4980      | 31.38514     | 9.29384e-1   | 1.8195  |

> 98.2%

Totals : 1724.96324 31.87366

\*\*\* End of Report \*\*\*

HBV Core Antigen, Recombinant  
Part: VTIG10  
Lot: M38492020  
MS 08 Oct 2020