

Status Flu A & B

2025 Annual Reactivity Testing Results

The following tables summarize the results of annual reactivity testing performed using 2025 CBER influenza viruses panel (Cat: VP2025, Lot No.: VP2025-001, Exp. Date: 2026-06-01) as required by 21 CFR 866.3328(b).

Using Swab Sample method

Influenza virus A

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)							
		10 ^{9.25}	2x10 ^{8.25}	4x10 ^{7.25}	8x10 ^{6.25}	1.6x10 ^{6.25}	3.2x10 ^{5.25}	6.4x10 ^{4.25}	1.28x10 ^{4.25}
A(H1N1)pdm09	A/Victoria/4897/2022	n/a	5/5	5/5	5/5	5/5	2/5	0/5	0/5
		10 ^{8.3}	2x10 ^{7.3}	4x10 ^{6.3}	8x10 ^{5.3}	1.6x10 ^{5.3}	3.2x10 ^{4.3}	6.4x10 ^{3.3}	n/a
A(H1N1)pdm09	A/Victoria/2570/2019	n/a	5/5	5/5	5/5	5/5	0/5	0/5	n/a
		10 ^{7.7}	2x10 ^{6.7}	4x10 ^{5.7}	8x10 ^{4.7}	1.6x10 ^{4.7}	3.2x10 ^{3.7}	6.4x10 ^{2.7}	1.28x10 ^{2.7}
A(H3N2)	A/Croatia/10136RV/2023	n/a	5/5	5/5	5/5	5/5	3/5	0/5	0/5
		10 ^{8.75}	2x10 ^{7.75}	4x10 ^{6.75}	8x10 ^{5.75}	1.6x10 ^{5.75}	3.2x10 ^{4.75}	6.4x10 ^{3.75}	1.28x10 ^{3.75}
A(H3N2)	A/Wisconsin/160/2024	n/a	5/5	5/5	5/5	5/5	5/5	0/5	0/5

Influenza virus B

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)							
		10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	n/a	n/a
√ (Victoria lineage)	B/Austria/1359417/2021	n/a	5/5	5/5	5/5	0/5	0/5	n/a	n/a
		10 ^{8.7}	2x10 ^{7.7}	4x10 ^{6.7}	8x10 ^{5.7}	1.6x 10 ^{5.7}	3.2x10 ^{4.7}	6.4x10 ^{3.7}	n/a
√ (Victoria lineage)	B/Netherlands/10894/2022	n/a	5/5	5/5	5/5	5/5	0/5	0/5	n/a
		10 ^{9.5}	2x10 ^{8.5}	4x10 ^{7.5}	8x10 ^{6.5}	1.6x10 ^{6.5}	3.2x10 ^{5.5}	6.4x10 ^{4.5}	1.28x10 ^{4.5}
√ (Yamagata lineage)	B/Phuket/3073/2013	n/a	5/5	5/5	5/5	5/5	5/5	0/5	0/5
		10 ¹⁰	2x10 ⁹	4x10 ⁸	8x10 ⁷	1.6x10 ⁷	3.2x10 ⁶	6.4x10 ⁵	1.28x10 ⁵
√ (Yamagata lineage)	B/Norway/2134/2019	n/a	5/5	5/5	5/5	5/5	5/5	0/5	0/5

Using Aspirate sample method

Influenza virus A

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)								
		10 ^{9.25}	2x10 ^{8.25}	4x10 ^{7.25}	8x10 ^{6.25}	1.6x10 ^{6.25}	3.2x10 ^{5.25}	6.4x10 ^{4.25}	1.28x10 ^{4.25}	n/a
A(H1N1)pdm09	A/Victoria/4897/2022	n/a	5/5	5/5	5/5	5/5	5/5	0/5	0/5	n/a
		10 ^{8.3}	2x10 ^{7.3}	4x10 ^{6.3}	8x10 ^{5.3}	1.6x10 ^{5.3}	3.2x10 ^{4.3}	6.4x10 ^{3.3}	1.28x10 ^{3.3}	n/a
A(H1N1)pdm09	A/Victoria/2570/2019	n/a	5/5	5/5	5/5	5/5	5/5	0/5	0/5	n/a
		10 ^{7.7}	2x10 ^{6.7}	4x10 ^{5.7}	8x10 ^{4.7}	1.6x10 ^{4.7}	3.2x10 ^{3.7}	6.4x10 ^{2.7}	1.28x10 ^{2.7}	2.56x10 ^{1.7}
A(H3N2)	A/Croatia/10136RV/2023	n/a	5/5	5/5	5/5	5/5	5/5	1/5	0/5	0/5
		10 ^{8.75}	2x10 ^{7.75}	4x10 ^{6.75}	8x10 ^{5.75}	1.6x10 ^{5.75}	3.2x10 ^{4.75}	6.4x10 ^{3.75}	1.28x10 ^{3.75}	2.56x10 ^{2.75}
A(H3N2)	A/Wisconsin/160/2024	n/a	5/5	5/5	5/5	5/5	5/5	5/5	0/5	0/5

Influenza virus B

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)								
		10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	6.4x10 ^{3.5}	n/a	n/a
√ (Victoria lineage)	B/Austria/1359417/2021	n/a	5/5	5/5	5/5	5/5	0/5	0/5	n/a	n/a
		10 ^{8.7}	2x10 ^{7.7}	4x10 ^{6.7}	8x10 ^{5.7}	1.6x 10 ^{5.7}	3.2x10 ^{4.7}	6.4x10 ^{3.7}	1.28x10 ^{3.7}	n/a
√ (Victoria lineage)	B/Netherlands/10894/2022	n/a	5/5	5/5	5/5	5/5	5/5	0/5	0/5	n/a
		10 ^{9.5}	2x10 ^{8.5}	4x10 ^{7.5}	8x10 ^{6.5}	1.6x10 ^{6.5}	3.2x10 ^{5.5}	6.4x10 ^{4.5}	1.28x10 ^{4.5}	2.56x10 ^{3.5}
√ (Yamagata lineage)	B/Phuket/3073/2013	n/a	5/5	5/5	5/5	5/5	5/5	5/5	0/5	0/5
		10 ¹⁰	2x10 ⁹	4x10 ⁸	8x10 ⁷	1.6x10 ⁷	3.2x10 ⁶	6.4x10 ⁵	1.28x10 ⁵	2.56x10 ⁴
√ (Yamagata lineage)	B/Norway/2134/2019	n/a	5/5	5/5	5/5	5/5	5/5	5/5	0/5	0/5

2024 Annual Reactivity Testing Results

The following tables summarize the results of annual reactivity testing performed using 2024 CBER influenza viruses panel (Cat: VP2024, Lot No.: VP2024-001, Exp. Date: 2025-06-01) as required by 21 CFR 866.3328(b).

Using Swab Sample method

Influenza virus A

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)						
A(H1N1)pdm09	A/Victoria/4897/2022	10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	n/a
		n/a	5/5	5/5	1/5	0/5	0/5	n/a
A(H1N1)pdm09	A/Victoria/2570/2019	10 ^{8.3}	2x10 ^{7.3}	4x10 ^{6.3}	8x10 ^{5.3}	1.6x10 ^{5.3}	3.2x10 ^{4.3}	n/a
		n/a	5/5	5/5	5/5	0/5	0/5	n/a
A(H3N2)	A/California/122/2022	10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	6.4x10 ^{3.5}
		n/a	5/5	5/5	5/5	5/5	0/5	0/5
A(H3N2)	A/Georgia/02/2022	10 ^{9.5}	2x10 ^{8.5}	4x10 ^{7.5}	8x10 ^{6.5}	1.6x10 ^{6.5}	3.2x10 ^{5.5}	6.4x10 ^{4.5}
		n/a	5/5	5/5	5/5	1/5	0/5	0/5

Influenza virus B

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)							
√ (Victoria lineage)	B/Austria/1359417/2021	10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	n/a	n/a
		n/a	5/5	5/5	5/5	0/5	0/5	n/a	n/a
√ (Victoria lineage)	B/Netherlands/10894/2022	10 ^{8.7}	2x10 ^{7.7}	4x10 ^{6.7}	8x10 ^{5.7}	1.6x 10 ^{5.7}	3.2x10 ^{4.7}	6.4x10 ^{3.7}	n/a
		n/a	5/5	5/5	5/5	5/5	0/5	0/5	n/a
√ (Yamagata lineage)	B/Phuket/3073/2013	10 ^{9.5}	2x10 ^{8.5}	4x10 ^{7.5}	8x10 ^{6.5}	1.6x10 ^{6.5}	3.2x10 ^{5.5}	6.4x10 ^{4.5}	1.28x10 ^{4.5}
		n/a	5/5	5/5	5/5	5/5	4/5	0/5	0/5
√ (Yamagata lineage)	B/Norway/2134/2019	10 ¹⁰	2x10 ⁹	4x10 ⁸	8x10 ⁷	1.6x10 ⁷	3.2x10 ⁶	6.4x10 ⁵	1.28x10 ⁵
		n/a	5/5	5/5	5/5	5/5	5/5	0/5	0/5

Using Aspirate sample method

Influenza virus A

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)								
A(H1N1)pdm09	A/Victoria/4897/2022	10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	n/a	n/a	n/a
		n/a	5/5	5/5	5/5	0/5	0/5	n/a	n/a	n/a
A(H1N1)pdm09	A/Victoria/2570/2019	10 ^{8.3}	2x10 ^{7.3}	4x10 ^{6.3}	8x10 ^{5.3}	1.6x10 ^{5.3}	3.2x10 ^{4.3}	6.4x10 ^{3.3}	n/a	n/a
		n/a	5/5	5/5	5/5	5/5	0/5	0/5	n/a	n/a
A(H3N2)	A/California/122/2022	10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	6.4x10 ^{3.5}	1.28x10 ^{3.5}	n/a
		n/a	5/5	5/5	5/5	5/5	5/5	0/5	0/5	n/a
A(H3N2)	A/Georgia/02/2022	10 ^{9.5}	2x10 ^{8.5}	4x10 ^{7.5}	8x10 ^{6.5}	1.6x10 ^{6.5}	3.2x10 ^{5.5}	6.4x10 ^{4.5}	n/a	n/a
		n/a	5/5	5/5	5/5	5/5	0/5	0/5	n/a	n/a

Influenza virus B

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)								
√ (Victoria lineage)	B/Austria/1359417/2021	10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	6.4x10 ^{3.5}	n/a	n/a
		n/a	5/5	5/5	5/5	5/5	0/5	0/5	n/a	n/a
√ (Victoria lineage)	B/Netherlands/10894/2022	10 ^{8.7}	2x10 ^{7.7}	4x10 ^{6.7}	8x10 ^{5.7}	1.6x 10 ^{5.7}	3.2x10 ^{4.7}	6.4x10 ^{3.7}	1.28x10 ^{3.7}	n/a
		n/a	5/5	5/5	5/5	5/5	5/5	0/5	0/5	n/a
√ (Yamagata lineage)	B/Phuket/3073/2013	10 ^{9.5}	2x10 ^{8.5}	4x10 ^{7.5}	8x10 ^{6.5}	1.6x10 ^{6.5}	3.2x10 ^{5.5}	6.4x10 ^{4.5}	1.28x10 ^{4.5}	2.56x10 ^{3.5}
		n/a	5/5	5/5	5/5	5/5	5/5	5/5	0/5	0/5
√ (Yamagata lineage)	B/Norway/2134/2019	10 ¹⁰	2x10 ⁹	4x10 ⁸	8x10 ⁷	1.6x10 ⁷	3.2x10 ⁶	6.4x10 ⁵	1.28x10 ⁵	2.56x10 ⁴
		n/a	5/5	5/5	5/5	5/5	5/5	2/5	0/5	0/5

2023 Annual Reactivity Testing Results

The following tables summarize the results of annual reactivity testing performed using 2023 CDC influenza viruses panel (Cat: VP2023, Lot No.: VP2023-001, Exp. Date: 2024-06-01) as required by 21 CFR 866.3328(b).

Using Swab Sample method

Influenza virus A

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)						
		10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	n/a
A(H1N1)pdm09	A/Victoria/4897/2022	10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	n/a
		n/a	5/5	5/5	2/5	0/5	0/5	n/a
A(H1N1)pdm09	A/Victoria/2570/2019	10 ^{8.3}	2x10 ^{7.3}	4x10 ^{6.3}	8x10 ^{5.3}	1.6x10 ^{5.3}	3.2x10 ^{4.3}	n/a
		n/a	5/5	5/5	3/5	0/5	0/5	n/a
A(H3N2)	A/Darwin/9/2021	10 ^{8.3}	2x10 ^{7.3}	4x10 ^{6.3}	8x10 ^{5.3}	1.6x10 ^{5.3}	3.3x10 ^{4.3}	6.4x10 ^{3.3}
		n/a	5/5	5/5	5/5	5/5	0/5	0/5
A(H3N2)	A/Georgia/02/2022	10 ^{9.5}	2x10 ^{8.5}	4x10 ^{7.5}	8x10 ^{6.5}	1.6x10 ^{6.5}	3.5x10 ^{5.5}	n/a
		n/a	5/5	5/5	5/5	0/5	0/5	n/a

Influenza virus B

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)							
		10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	n/a	n/a
√ (Victoria lineage)	B/Austria/1359417/2021	10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	n/a	n/a
		n/a	5/5	5/5	1/5	0/5	0/5	n/a	n/a
√ (Victoria lineage)	B/Netherlands/10894/2022	10 ^{8.7}	2x10 ^{7.7}	4x10 ^{6.7}	8x10 ^{5.7}	1.6x 10 ^{5.7}	3.2x10 ^{4.7}	n/a	n/a
		n/a	5/5	5/5	5/5	0/5	0/5	n/a	n/a
√ (Yamagata lineage)	B/Phuket/3073/2013	10 ^{7.8}	2x10 ^{6.8}	4x10 ^{5.8}	8x10 ^{4.8}	1.6x10 ^{4.8}	3.2x10 ^{3.8}	n/a	n/a
		n/a	5/5	5/5	5/5	0/5	0/5	n/a	n/a
√ (Yamagata lineage)	B/Norway/2134/2019	10 ^{9.5}	2x10 ^{8.5}	4x10 ^{7.5}	8x10 ^{6.5}	1.6x10 ^{6.5}	3.2x10 ^{5.5}	6.4x10 ^{4.5}	1.28x10 ^{4.5}
		n/a	5/5	5/5	5/5	5/5	2/5	0/5	0/5

Using Aspirate sample method

Influenza virus A

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)								
		10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	n/a	n/a	n/a
A(H1N1)pdm09	A/Victoria/4897/2022	10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	n/a	n/a	n/a
		n/a	5/5	5/5	4/5	0/5	0/5	n/a	n/a	n/a
A(H1N1)pdm09	A/Victoria/2570/2019	10 ^{8.3}	2x10 ^{7.3}	4x10 ^{6.3}	8x10 ^{5.3}	1.6x10 ^{5.3}	3.2x10 ^{4.3}	6.4x10 ^{3.3}	n/a	n/a
		n/a	5/5	5/5	5/5	4/5	0/5	0/5	n/a	n/a
A(H3N2)	A/Darwin/9/2021	10 ^{8.3}	2x10 ^{7.3}	4x10 ^{6.3}	8x10 ^{5.3}	1.6x10 ^{5.3}	3.3x10 ^{4.3}	6.4x10 ^{3.3}	1.28x10 ^{3.3}	2.56x10 ^{2.3}
		n/a	5/5	5/5	5/5	5/5	5/5	2/5	0/5	0/5
A(H3N2)	A/Georgia/02/2022	10 ^{9.5}	2x10 ^{8.5}	4x10 ^{7.5}	8x10 ^{6.5}	1.6x10 ^{6.5}	3.5x10 ^{5.5}	6.4x10 ^{4.5}	1.28x10 ^{4.5}	n/a
		n/a	5/5	5/5	5/5	5/5	2/5	0/5	0/5	n/a

Influenza virus B

Influenza Virus (Type/Subtype)	Virus Strain Name	Virus Serial Dilution Concentration (EID ₅₀ /mL) and Number of Positive Results at Each Dilution (no. of positives /5 replicates)								
		10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	6.4x10 ^{3.5}	n/a	n/a
√ (Victoria lineage)	B/Austria/1359417/2021	10 ^{8.5}	2x10 ^{7.5}	4x10 ^{6.5}	8x10 ^{5.5}	1.6x10 ^{5.5}	3.2x10 ^{4.5}	6.4x10 ^{3.5}	n/a	n/a
		n/a	5/5	5/5	5/5	1/5	0/5	0/5	n/a	n/a
√ (Victoria lineage)	B/Netherlands/10894/2022	10 ^{8.7}	2x10 ^{7.7}	4x10 ^{6.7}	8x10 ^{5.7}	1.6x 10 ^{5.7}	3.2x10 ^{4.7}	6.4x10 ^{3.7}	n/a	n/a
		n/a	5/5	5/5	5/5	5/5	0/5	0/5	n/a	n/a
√ (Yamagata lineage)	B/Phuket/3073/2013	10 ^{7.8}	2x10 ^{6.8}	4x10 ^{5.8}	8x10 ^{4.8}	1.6x10 ^{4.8}	3.2x10 ^{3.8}	6.4x10 ^{2.8}	1.28x10 ^{2.8}	n/a
		n/a	5/5	5/5	5/5	5/5	2/5	0/5	0/5	n/a
√ (Yamagata lineage)	B/Norway/2134/2019	10 ^{9.5}	2x10 ^{8.5}	4x10 ^{7.5}	8x10 ^{6.5}	1.6x10 ^{6.5}	3.2x10 ^{5.5}	6.4x10 ^{4.5}	1.28x10 ^{4.5}	2.56x10 ^{3.5}
		n/a	5/5	5/5	5/5	5/5	5/5	2/5	0/5	0/5