

# Alternative Sources of Neuraminidase Inhibitors

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# Neuraminidase inhibitors

| Antiviral            | Company        | Quantity                 | Price                                  |
|----------------------|----------------|--------------------------|--|
| Oseltamivir acid     | Biosynth       | 5mg<br>10mg<br>50mg      | USD 139.75<br>USD 209.70<br>USD 699    |
|                      | MedChemExpress | 5mg<br>10mg<br>50mg      | USD 86<br>USD 145<br>USD 515           |
| Peramivir trihydrate | Biosynth       | 5mg<br>10mg<br>50mg      | USD 125.78<br>USD 198.45<br>USD 663.84 |
|                      | MedChemExpress | 5mg<br>10mg<br>50mg      | USD 88<br>USD 154<br>USD 495           |
| Zanamivir hydrate    | Biosynth       | 100mg<br>500mg<br>1000mg | USD 133<br>USD 420<br>USD 700          |
|                      | MedChemExpress | 10mg<br>50mg<br>100mg    | USD 90<br>USD 192<br>USD 331           |
| Laninamivir          | Biosynth       | 1mg<br>5mg               | USD 950<br>USD 3000                    |
|                      | MedChemExpress | 10mg<br>50mg<br>100mg    | USD 150<br>USD 450<br>USD 650          |

# Osetamivir

| Reference virus     | Type/Subtype | Genotype | IC <sub>50</sub> (nM)* |                |
|---------------------|--------------|----------|------------------------|----------------|
|                     |              |          | Biosynth               | MedChemExpress |
| A/Perth/261/2009    | A(H1N1)pdm09 | H275Y    | 444.69 ± 66.61         | 342.74 ± 53.11 |
| A/Perth/265/2009    | A(H1N1)pdm09 | WT       | 0.17 ± 0.06            | 0.14 ± 0.03    |
| A/Texas/12/2007     | A(H3N2)      | E119V    | 60.51 ± 4.25           | 50.19 ± 1.52   |
| A/Fukui/20/2004     | A(H3N2)      | WT       | 0.15 ± 0.03            | 0.11 ± 0.01    |
| B/Rochester/02/2001 | B Yamagata   | D197N    | 77.22 ± 14.82          | 55.31 ± 6.02   |
| B/Rochester/02/2001 | B Yamagata   | WT       | 11.42 ± 1.60           | 5.28 ± 0.77    |

\*Mean value of triplicate reactions.

Viruses were examined by a fluorescence-based NA inhibition assay.

# Peramivir

| Reference virus     | Type/Subtype | Genotype | IC <sub>50</sub> (nM)* |                |
|---------------------|--------------|----------|------------------------|----------------|
|                     |              |          | Biosynth               | MedChemExpress |
| A/Perth/261/2009    | A(H1N1)pdm09 | H275Y    | 51.94 ± 7.36           | 33.55 ± 4.44   |
| A/Perth/265/2009    | A(H1N1)pdm09 | WT       | 0.07 ± 0.01            | 0.05 ± 0.00    |
| A/Texas/12/2007     | A(H3N2)      | E119V    | 0.15 ± 0.02            | 0.11 ± 0.02    |
| A/Fukui/20/2004     | A(H3N2)      | WT       | 0.22 ± 0.02            | 0.16 ± 0.03    |
| B/Rochester/02/2001 | B Yamagata   | D197N    | 1.16 ± 0.16            | 0.68 ± 0.08    |
| B/Rochester/02/2001 | B Yamagata   | WT       | 0.33 ± 0.02            | 0.20 ± 0.03    |

\*Mean value of triplicate reactions.

Viruses were examined by a fluorescence-based NA inhibition assay.

# Zanamivir

| Reference virus     | Type/Subtype | Genotype | IC <sub>50</sub> (nM)* |                |
|---------------------|--------------|----------|------------------------|----------------|
|                     |              |          | Biosynth               | MedChemExpress |
| A/Perth/261/2009    | A(H1N1)pdm09 | H275Y    | 0.31 ± 0.11            | 0.20 ± 0.06    |
| A/Perth/265/2009    | A(H1N1)pdm09 | WT       | 0.22 ± 0.03            | 0.14 ± 0.04    |
| A/Texas/12/2007     | A(H3N2)      | E119V    | 0.76 ± 0.06            | 0.47 ± 0.09    |
| A/Fukui/20/2004     | A(H3N2)      | WT       | 1.29 ± 0.16            | 1.00 ± 0.12    |
| B/Rochester/02/2001 | B Yamagata   | D197N    | 6.99 ± 0.62            | 4.03 ± 0.59    |
| B/Rochester/02/2001 | B Yamagata   | WT       | 1.18 ± 0.12            | 0.63 ± 0.24    |

\*Mean value of triplicate reactions.

Viruses were examined by a fluorescence-based NA inhibition assay.

# Laninamivir

| Reference virus     | Type/Subtype | Genotype | IC <sub>50</sub> (nM)* |                |
|---------------------|--------------|----------|------------------------|----------------|
|                     |              |          | Biosynth               | MedChemExpress |
| A/Perth/261/2009    | A(H1N1)pdm09 | H275Y    | 0.49 ± 0.10            | 0.37 ± 0.09    |
| A/Perth/265/2009    | A(H1N1)pdm09 | WT       | 0.22 ± 0.03            | 0.14 ± 0.03    |
| A/Texas/12/2007     | A(H3N2)      | E119V    | 0.64 ± 0.10            | 0.45 ± 0.09    |
| A/Fukui/20/2004     | A(H3N2)      | WT       | 1.24 ± 0.12            | 1.20 ± 0.34    |
| B/Rochester/02/2001 | B Yamagata   | D197N    | 6.65 ± 0.42            | 4.57 ± 1.48    |
| B/Rochester/02/2001 | B Yamagata   | WT       | 2.22 ± 0.31            | 1.57 ± 0.56    |

\*Mean value of triplicate reactions.

Viruses were examined by a fluorescence-based NA inhibition assay.