

Alternative sources MUNANA

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MUNANA

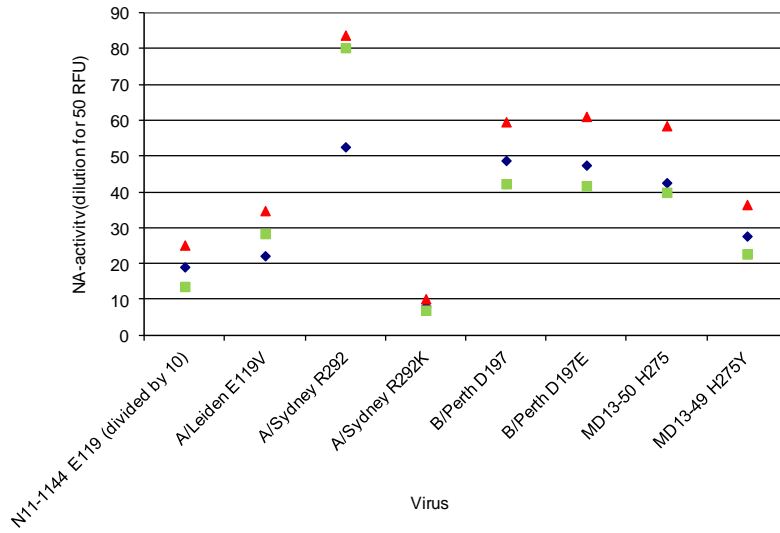
- Prices from NL (July 2014)
- Golden Standard
 - Sigma-Aldrich: 25 mg for 1,125 Euros
- Alternatives
 - Biosynth AG: 100 mg for 200 Euros exclusive Taxes and 20 Euros shipping costs
 - Sequoia Research Products Ltd: 100 mg for 300 Euros

Used assays

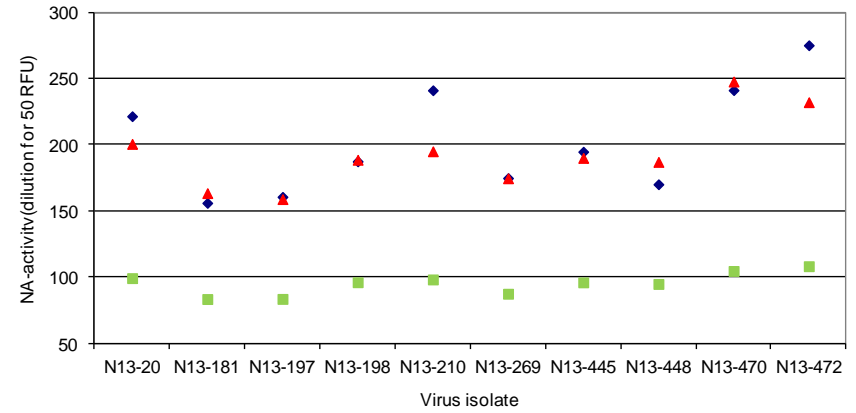
- All tests performed by fluorescence-based neuraminidase inhibition assay

RIVM, virus dilutions for 50 RFU; 3 brands of MUNANA tested

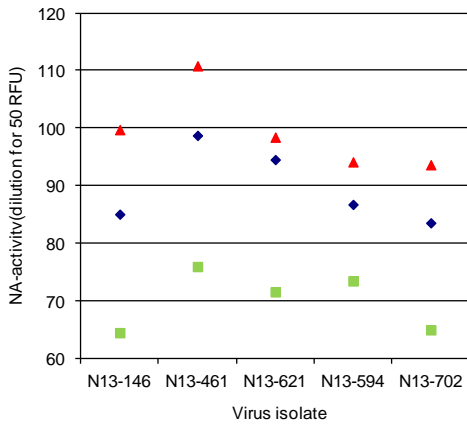
Reference viruses



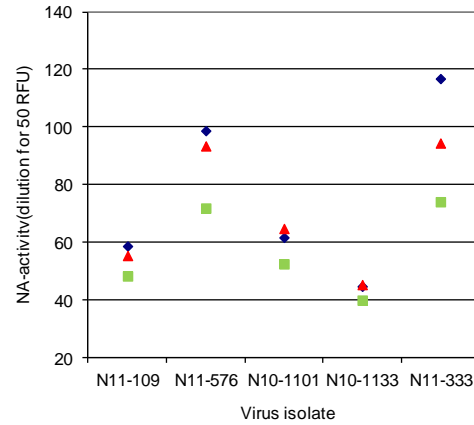
A(H3N2)



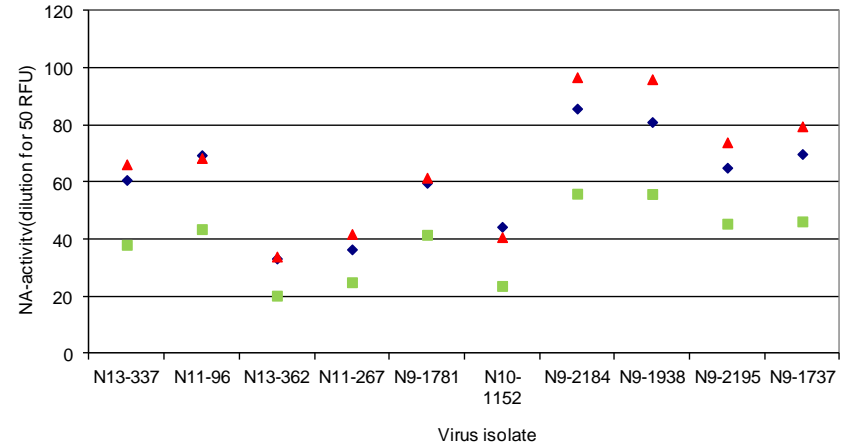
B/Yam



B/Vic



A(H1N1)pdm09



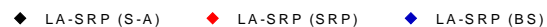
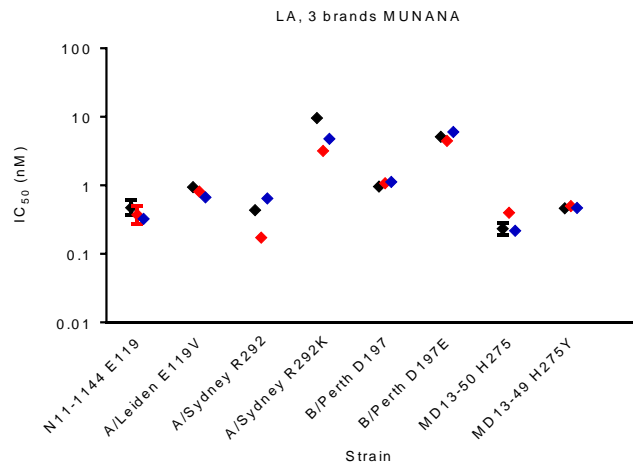
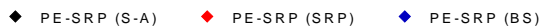
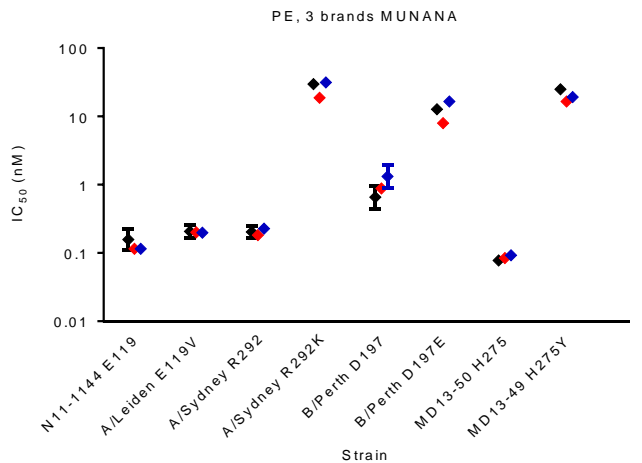
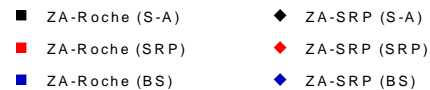
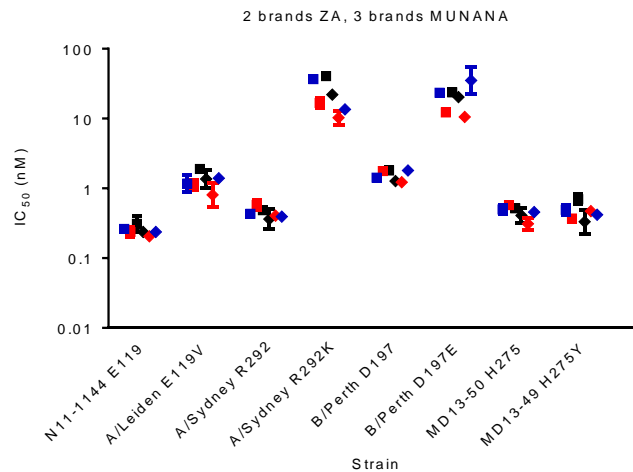
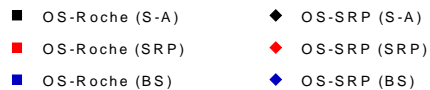
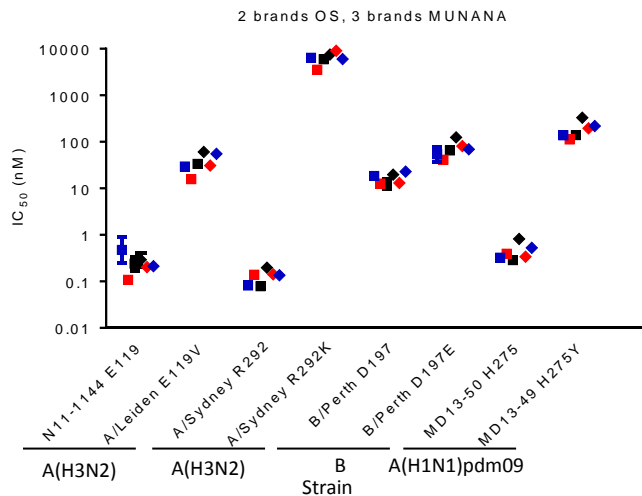
◆ Sigma-Aldrich

■ SRP

▲ Biosynth

RIVM, IC₅₀s reference strains, mean ± 1SD (n=4)

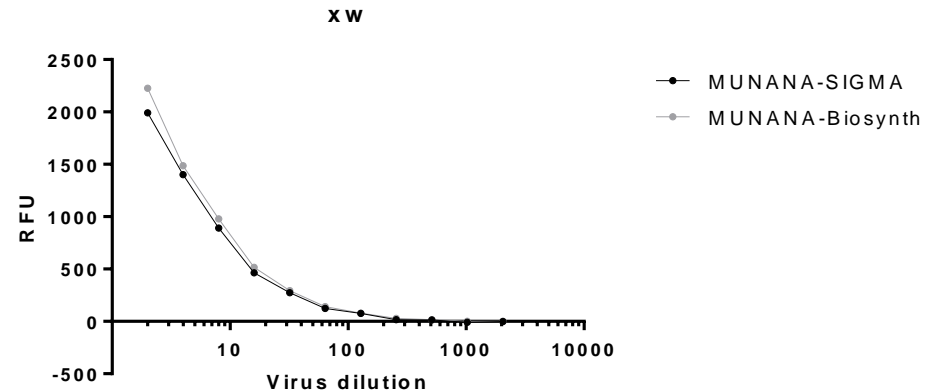
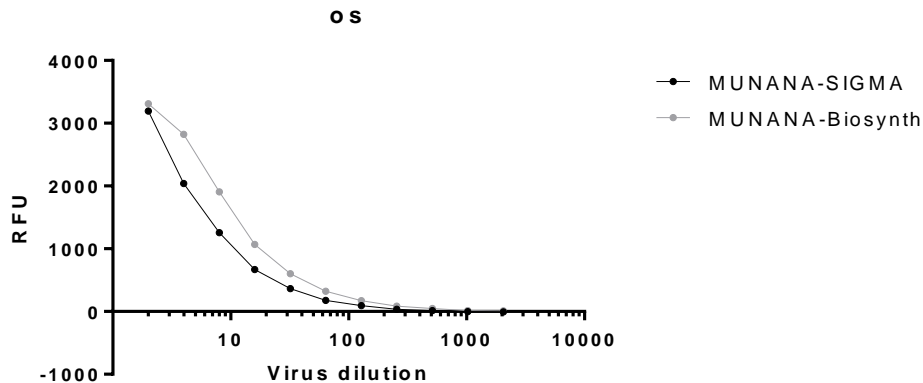
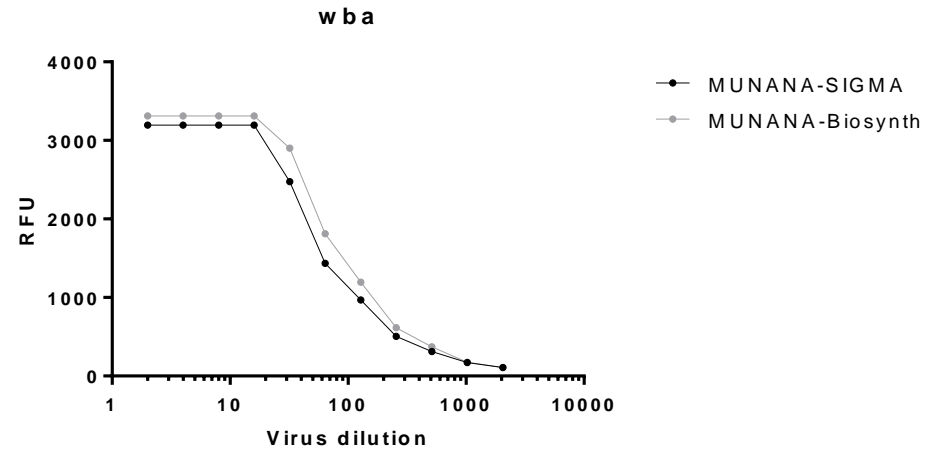
labels: <NAI>-<brand NAI > <(brand MUNANA)>



OS = oseltamivir; ZA = zanamivir; PE = peramivir; LA= laninamivir
 S-A = Sigma Aldrich; SRP = Sequoia Research Products Ltd.; BS = Biosynth AG

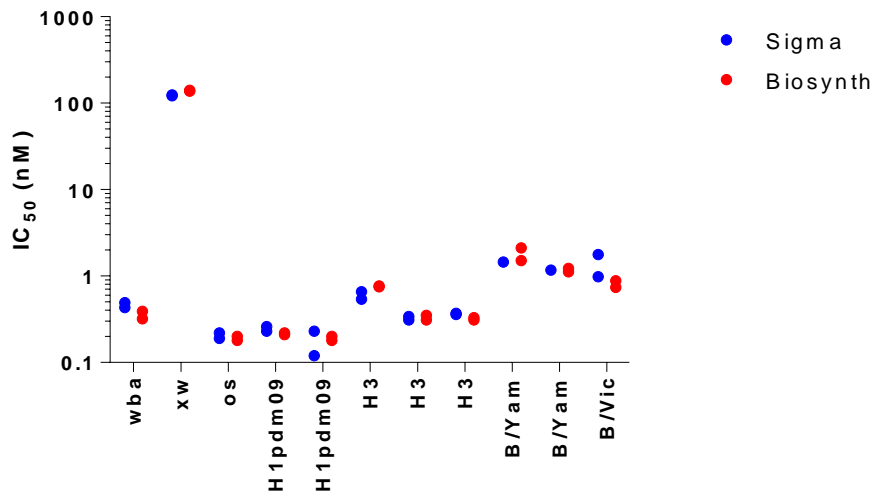
WHO CC Melbourne, comparison of virus NA activity curves using two different MUNANA sources

wba = wild type A(H1N9)
xw = A(H1N9) with E119G
os = A(H1N1) with H275Y

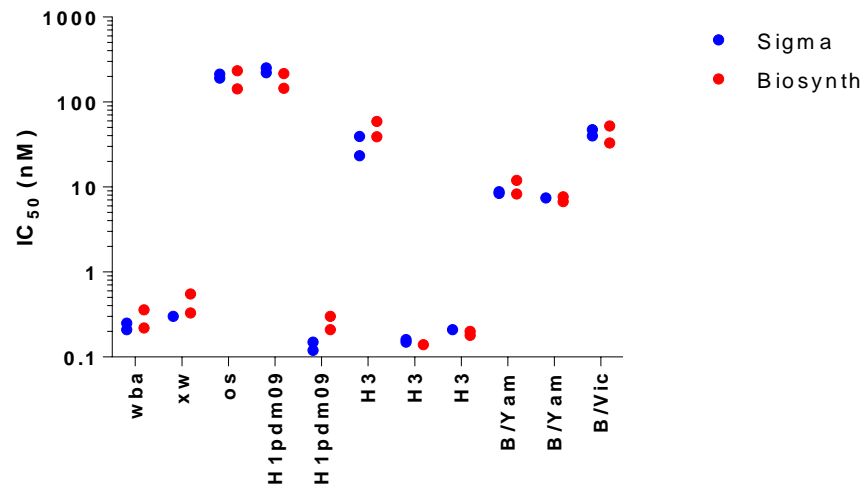


WHO CC Melbourne, comparison of IC₅₀ values using two MUNANA sources

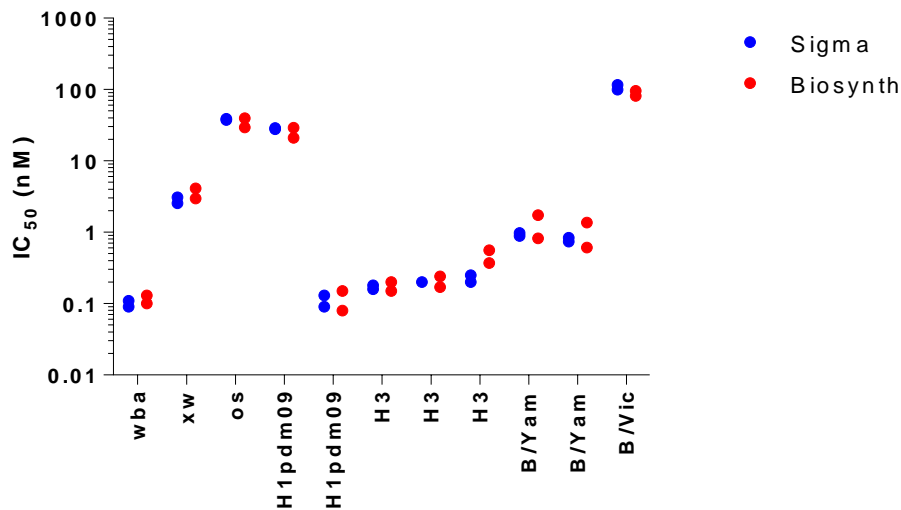
Zanamivir



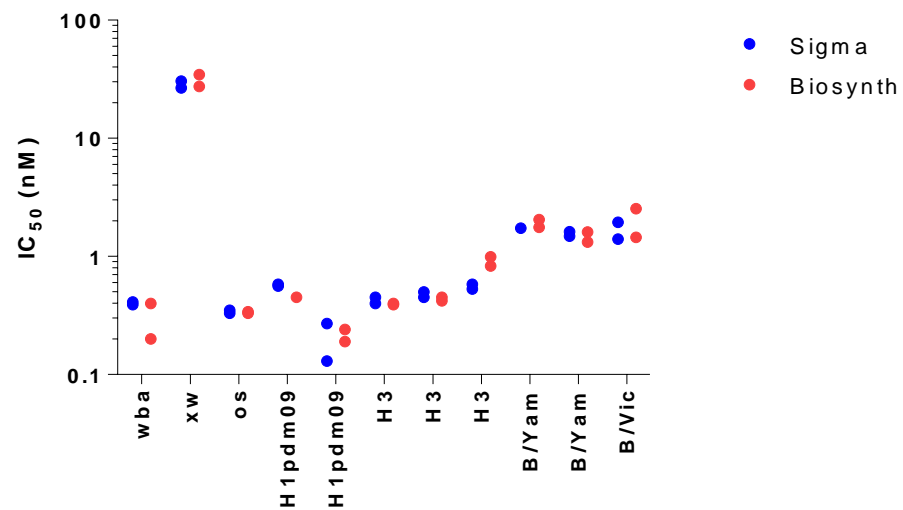
Oseltamivir



Peramivir



Laninamivir



WHO CC Tokyo, MUNANA

Reference Virus	Type/Subtype	Genotype	Oseltamivir IC ₅₀ (nM)	
			Sigma	Biosynth
A/Fukui/45/2004	A(H3N2)	E119V	50.69	67.73
A/Fukui/20/2004	A(H3N2)	WT	0.11	0.13
B/Perth/211/2001	B Yamagata	D197E	182.96	213.56
B/Perth/211/2001	B Yamagata	WT	16.86	20.66

Viruses were examined by fluorescence-based NA-Fluor assay.

Conclusions

- MUNANA from Sigma-Aldrich and Biosynth performed similarly in determining neuraminidase activity
- A larger amount of virus was needed to generate the same level of RFUs when using MUNANA from Sequoia compared to MUNANA from Sigma-Aldrich and Biosynth
- IC_{50} s of NI, RI and HRI viruses determined with the three MUNANA brands were similar

Contact information

- Sequoia Research Products Ltd., United Kingdom: <http://www.seqchem.com>
- Biosynth AG, Switzerland:
<http://www.biosynth.com>