Monoclonal Pan Anti-Influenza A Virus Nucleoprotein (NP) (produced *in vitro*)

Catalog No. NR-59597
Sino Biological Catalog No. 40205-MM18

For research use only. Not for use in humans.

Contributor and Manufacturer:
Sino Biological, Inc., Wayne, Pennsylvania, USA

Product Description:
Antibody Class: IgG2b
Clone: 18
Mouse monoclonal antibody prepared against the nucleoprotein (NP) of influenza A virus was purified from hybridoma supernatant by protein A affinity chromatography. The B cell hybridoma was generated by the fusion of mouse myeloma cells with splenocytes from mice immunized with purified recombinant Influenza A H1N1 (A/California/07/2009) NP protein (Sino Biological Cat # 40205-V08B; GenPept: ACS94534.1; Met1-Ser498).[1]

Material Provided:
Each vial of NR-59597 contains approximately 50 µL of monoclonal antibody in phosphate buffered saline (PBS). The concentration, expressed as mg/mL, is shown on the Certificate of Analysis.

Packaging/Storage:
NR-59597 was packaged aseptically in screw-capped plastic vials and is provided frozen on dry ice. The product should be stored at -20°C to -80°C immediately upon arrival. NR-59597 can be stored at 2°C to 8°C for one month without detectable loss of activity. Freeze-thaw cycles should be avoided.

Functional Activity:
NR-59597 widely recognizes NP of Influenza A virus (Figures 1 and 2). Information on cross-reactivity in ELISA and western blot is shown in Table 1. The optimal concentration and dilution of the antibody to be used in a specific application should be determined by the user.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Pan Anti-Influenza A Virus Nucleoprotein (NP) (produced *in vitro*), NR-59597."

Biosafety Level: 1
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories (BMBL). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

Disclaimers:
You are authorized to use this product for research use only. It is not intended for human use.

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References:
1. Lu, J., Personal Communication.

Support Provided by NIAID

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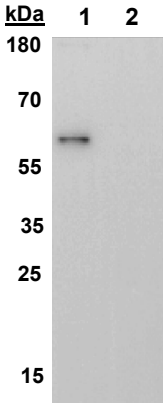
E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

Figure 1: Representative Western Blot of NR-59597



Lane 1: Influenza A H3N2 (A/Darwin/9/2021)/(A/Darwin/6/2021) NP (Sino Biological 40858-V08B) (10 ng)
Lane 2: Influenza B (B/Austria/1359417/2021) NP (Sino Biological 40858-V08B) (10 ng)

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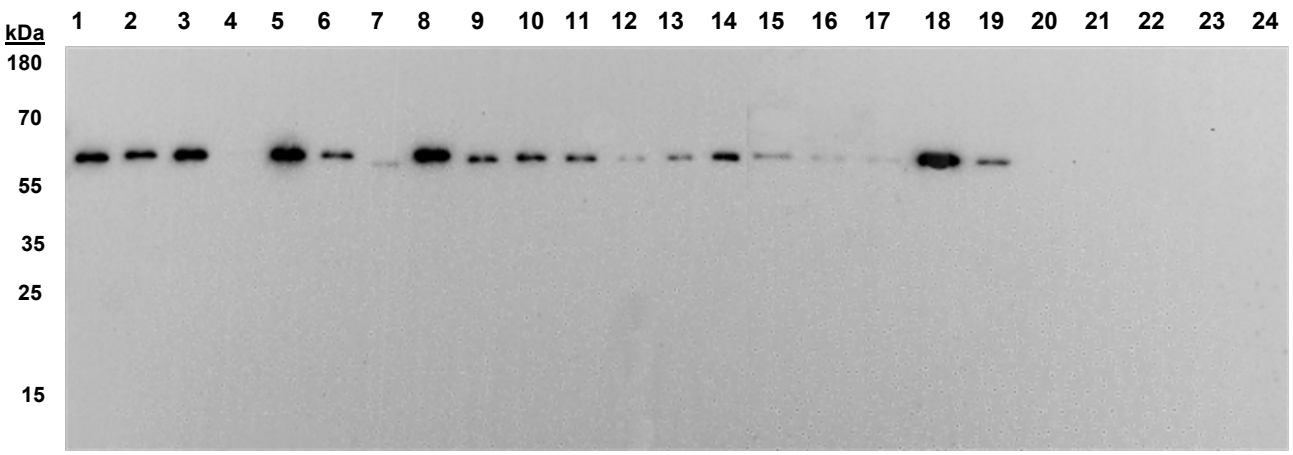
Figure 2: Representative Western Blot showing the specificity of NR-59597



Lane 1: H1N1 (A/Brevig Mission/1/1918) NP (Catalog# 40204-V08B)
Lane 2: H1N1 (A/Brisbane/02/2018 NP (Catalog# 40776-V08B)
Lane 3: H1N1 (A/California/07/2009) NP (Catalog# 40205-V08B)
Lane 4: H1N1 (A/Guangdong-Maonan/SWL1536/2019) NP (Catalog# 40723-V08B)
Lane 5: H1N1 (A/Hawaii/70/2019) NP (Catalog# 40724-V08B)
Lane 6: H1N1 (A/Michigan/45/2015 NP (Catalog# 40777-V08B)
Lane 7: H1N1 (A/Puerto Rico/8/34/Mount Sinai) NP (I116M) (Catalog# 11675-V08B)
Lane 8: H1N1 (A/Victoria/2570/2019)/(A/Wisconsin/588/2019) NP (Catalog# 40774-V08B)
Lane 9: H2N2 (A/Ann Arbor/6/1960) NP (Catalog# 40033-V08B)
Lane 10: H3N2 (A/Aichi/2/1968) NP (Catalog# 40207-V08B)
Lane 11: H3N2 (A/Cambodia/e0826360/2020 (H3N2)-like NP (Catalog# 40778-V08B)
Lane 12: H3N2 (A/Hong Kong/1/1968) NP (Catalog# 40208-V08B)
Lane 13: H3N2 (A/Hong Kong/2671/2019) NP (Catalog# 40753-V08B)
Lane 14: H3N2 (A/Hong Kong/45/2019) NP (Catalog# 40754-V08B)
Lane 15: H3N2 (A/Hong Kong/4801/2014 NP (Catalog# 40781-V08B)
Lane 16: H3N2 (A/Kansas/14/2017 NP (Catalog# 40779-V08B)
Lane 17: H3N2 (A/Switzerland/9715293/2013) NP (Catalog# 40499-V08B)
Lane 18: H7N9 (A/Anhui/1-BALF_RG6/2013) NP (Catalog# 40110-V08B)
Lane 19: H7N9 (A/Shanghai/2/2013) NP (Catalog# 40111-V08B)
Lane 20: Influenza B (B/Brisbane/60/2008) NP (Catalog# 40783-V08B)
Lane 21: Influenza B (B/Colorado/06/2017) NP (Catalog# 40782-V08B)
Lane 22: Influenza B (B/Florida/4/2006) NP (Catalog# 40438-V08B)
Lane 23: Influenza B (B/Phuket/3073/2013) NP (Catalog# 40500-V08B)
Lane 24: Influenza B (B/Washington/02/2019) NP (Catalog# 40755-V08B)

Sample: Recombinant Protein 10 ng

Table 1: Cross-reactivity of NR-59597 Nucleoprotein (NP) in ELISA and Western blot

Cross-reactivity	Immunogen	Catalog #. (Sino Biological)
ELISA	H1N1 (A/Brevig Mission/1/1918) NP	40204-V08B
	H1N1 (A/Brisbane/02/2018) NP	40776-V08B
	H1N1 (A/California/07/2009) NP	40205-V08B
	H1N1 (A/Guangdong-Maonan/SWL1536/2019) NP	40723-V08B
	H1N1 (A/Hawaii/70/2019) NP	40724-V08B
	H1N1 (A/Michigan/45/2015) NP	40777-V08B
	H1N1 (A/Puerto Rico/8/34/Mount Sinai) NP	11675-V08B
	H1N1 (A/Victoria/2570/2019)/(A/Wisconsin/588/2019) NP	40774-V08B
	H2N2 (A/Ann Arbor/6/1960) NP	40033-V08B
	H3N2 (A/Aichi/2/1968) NP	40207-V08B
	H3N2 (A/Cambodia/e0826360/2020) NP	40778-V08B
	H3N2 (A/Hong Kong/1/1968) NP	40208-V08B
	H3N2 (A/Hong Kong/2671/2019) NP	40753-V08B
	H3N2 (A/Hong Kong/45/2019) NP	40754-V08B
	H3N2 (A/Hong Kong/4801/2014) NP	40781-V08B
	H3N2 (A/Kansas/14/2017) NP	40779-V08B
	H3N2 (A/Switzerland/9715293/2013) NP	40499-V08B
	H7N9 (A/Anhui/1-BALF_RG6/2013) NP	40110-V08B
	H7N9 (A/Shanghai/2/2013) NP	40111-V08B
	Influenza B (B/Brisbane/60/2008) NP	40783-V08B
	Influenza B (B/Colorado/06/2017) NP	40782-V08B
	Influenza B (B/Phuket/3073/2013) NP	40500-V08B
Both ELISA and WB	H3N2 (A/Darwin/9/2021)/(A/Darwin/6/2021) NP	40858-V08B
None in ELISA and WB	Influenza B (B/Austria/1359417/2021) NP	40861-V08B
None in ELISA	SARS-CoV-2 Nucleocapsid Protein	40588-V08B
	HCoV-229E Nucleocapsid Protein	40640-V07E
	HCoV-NL63 Nucleocapsid Protein	40641-V07E
	HCoV-OC43 Nucleocapsid Protein	40643-V07E
	Influenza B (B/Florida/4/2006) NP	40438-V08B
	Influenza B (B/Washington/02/2019) NP	40755-V08B

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