

Human Rhinovirus B48, 1505

Catalog No. NR-59803

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Contributor:

National Institute of Allergy and Infectious Diseases (NIAID),
National Institutes of Health (NIH)

Manufacturer:

BEI Resources

Product Description:

Virus Classification: *Picornaviridae, Enterovirus*

Species: Human rhinovirus 48 (also referred to as rhinovirus B48)

Strain/Isolate: 1505

Original Source: Human rhinovirus 48 (HRV 48), 1505 was derived from NIAID catalog number V-122-003-021 prepared by Abbott Laboratories and potency tested in 1977 (BEI Resources NR-51454). NR-59803 replaces NR-51454.

Comments: The complete genome of HRV B48 has been sequenced (GenBank: [DQ473488](https://www.ncbi.nlm.nih.gov/nuccore/DQ473488)).

Human rhinoviruses (HRV) are primarily inhabitants of the upper respiratory tract, traditionally associated with mild upper respiratory tract infections. Due to recent advances in identification, it has been shown that HRVs are involved in the development and exacerbation of respiratory diseases such as asthma and are responsible for more severe disease states involving the lower respiratory tract in young children and in the immunosuppressed.^{1,2,3} None of the human rhinoviruses are known to be pathogenic in any animal.

Material Provided:

Each vial contains approximately 1 mL of cell lysate and supernatant from *Homo sapiens* lung fibroblast cells infected with HRV B48, 1505.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:

NR-59803 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:

Host: *Homo sapiens* lung fibroblast cells (WI-38; ATCC® CCL-75™)

Growth Medium: Eagle's Minimum Essential Medium containing Earle's Balanced Salt Solution, non-essential amino acids, 2 mM L-glutamine, 1 mM sodium pyruvate and

1.5 g/L of sodium bicarbonate supplemented with 2% fetal bovine serum, or equivalent

Infection: Cells should be 70% to 80% confluent

Incubation: 8 to 10 days at 33°C and 5% CO₂

Cytopathic Effect: Cell rounding and sloughing

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Human Rhinovirus B48, 1505, NR-59803."

Biosafety Level: 2

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). Current Edition. Washington, DC: U.S. Government Printing Office.

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References:

1. Sayama, A., et al. "Comparison of Rhinovirus A-, B-, and C-Associated Respiratory Tract Illness Severity Based on the 5'-Untranslated Region Among Children Younger Than 5 Years." Open Forum Infect. Dis. 19 (2022): ofac387. PubMed: 36267245.
2. Mufson, M. A., et al. "A Description of Six New Rhinoviruses of Human Origin." Am. J. Epidemiol. 81 (1965): 32-43. PubMed: 14246079.
3. McIntyre, C. L., N. J. Knowles and P. Simmonds. "Proposals for the Classification of Human Rhinovirus Species A, B and C into Genotypically Assigned Types." J. Gen. Virol. 94 (2013): 1791-1806. PubMed: 23677786.

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