

**Recombinant Respiratory Syncytial Virus, A2 Expressing Green Fluorescent Protein (GFP) (rgRSV224)**

**Catalog No. NR-52018**

**For research use only. Not for use in humans.**

**Contributor:**

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**Manufacturer:**

BEI Resources

**Product Description:**

Virus Classification: *Pneumoviridae*, *Orthopneumovirus*, *Human orthopneumovirus*

Species: Respiratory Syncytial Virus

Strain/Isolate: A2

Original Source: Recombinant respiratory syncytial virus, A2 expressing green fluorescent protein (GFP) (rgRSV224) was developed using a historical strain of RSV, A2, originally isolated in the 1950s in the United States.<sup>1</sup>

Comments: The complete genome of RSV, A2 has been sequenced (GenBank: [KT992094](https://www.ncbi.nlm.nih.gov/nuccore/KT992094)).

Recombinant RSV, A2 expressing GFP (rgRSV224) was developed by recombination using the P. Collins system. The early GFP gene was inserted before the NS1 gene in the D46 cDNA genome and rescued as a replicating virus.<sup>1,2</sup> It is useful for drug development, such as screening of antiviral drugs, studying RSV infection *in vitro* and *in vivo* animal models, developing assays for identification of neutralizing antibodies and viral assays for vaccine development.<sup>1</sup>

**Material Provided:**

Each vial contains approximately 1.0 mL of cell lysate and supernatant from *Homo sapiens* epithelial carcinoma cells infected with RSV, A2 expressing GFP (rgRSV224).

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

**Packaging/Storage:**

NR-52018 was packaged aseptically in screw-capped plastic 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* epithelial carcinoma cells (HEp-2; ATCC® CCL-23™)

Growth Medium: Dulbecco's Modified Eagle's Medium containing Earle's Balanced Salt Solution (ATCC® 30-

2002™) with 25 mM HEPES (Gibco; 15630-080, supplemented with 10% fetal bovine serum (ATCC® 30-2020™), or equivalent

Infection: Cells should be 70% to 90% confluent

Incubation: 3 to 5 days at 37°C and 5% CO<sub>2</sub>

Cytopathic Effect: Syncytia formation and cell disruption

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Recombinant Respiratory Syncytial Virus, A2 Expressing Green Fluorescent Protein (GFP) (rgRSV224), NR-52018."

**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 \(BMBL\)](#), 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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**References:**

1. Peeples, M. E., Personal Communication.
2. Hallak, L. K., et al. "Iduronic Acid-Containing Glycosaminoglycans on Target Cells are Required for Efficient Respiratory Syncytial Virus Infection." *Virology* 271 (2000): 264-275. PubMed: 10860881.

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