

***Mycobacterium tuberculosis*, Strain H37Rv, Extracellular Vesicle-Enriched Culture Filtrate Proteins**

Catalog No. NR-52722

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For research use only. Not for use in humans.

Contributor and Manufacturer:

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Product Description:

NR-52722 is a preparation of extracellular vesicle (EV)-enriched culture filtrate proteins (CFP) from *Mycobacterium tuberculosis* (*M. tuberculosis*), strain H37Rv. Mycobacterial EVs are involved in disease pathogenesis through host-pathogen interactions, including modulation of immune response and virulence, and may have potential as disease biomarkers and in vaccine and therapeutic development.^{1,2,3}

The culture was grown to late log phase in glycerol-alanine-salts medium. The culture supernatant was harvested from the live cells and the CFP was concentrated. The resulting CFP had small proteins/molecules removed by 100 kDa ultrafiltration. The retentate was passed over a multimodal size exclusion column, then concentrated using 3 kDa ultrafiltration and filter sterilized. Protein was quantitated by bicinchoninic acid (BCA) assay.

Material Provided:

Each vial of NR-52722 contains approximately 50 µg of extracellular vesicle-enriched culture filtrate proteins from *M. tuberculosis*, strain H37Rv in 10 mM ammonium bicarbonate.

Packaging/Storage:

NR-52722 was packaged aseptically in cryovials. The product is provided frozen on blue ice and should be stored at 4°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Note: The long-term stability of NR-52722 has not yet been determined.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Mycobacterium tuberculosis*, Strain H37Rv, Extracellular Vesicle-Enriched Culture Filtrate Proteins, NR-52722."

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](#). 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmb15/index.htm.

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References:

1. Wang, J., et al. "Extracellular Vesicles in Mycobacterial Infections: Their Potential as Molecule Transfer Vectors." *Front. Immunol.* 10 (2019): 1929. PubMed: 31474995.
2. Gupta, S. and G. M. Rodriguez. "Mycobacterial Extracellular Vesicles and Host Pathogen Interactions." *Pathog. Dis.* 76 (2018): fty031. PubMed: 29722822.
3. Rodrigues, M., et al. "Roles of Extracellular Vesicles in Viral and Bacterial Infections: Pathogenesis, Diagnostics, and Therapeutics." *Theranostics* 8 (2018): 2709-2721. PubMed: 29774070.

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