

Monoclonal Anti-*Toxoplasma gondii* Dense Granule Antigen 1, Clone T5 2B4 (produced *in vitro*)

Catalog No. NR-50264

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Antibody Class: IgG1k

Mouse monoclonal antibody prepared against the dense granule antigen 1 (GRA1) of *Toxoplasma gondii* clone T5 2B4 was purified from the hybridoma supernatant by protein G affinity chromatography. The B cell hybridoma was generated by the fusion of SP2/0 myeloma cells with immunized BALB/c mouse splenocytes. Clone T5 2B4 recognizes the GRA1 protein.¹ GRA1 (~ 27 kDa) is one of several dense granule proteins that are secreted and localized in the parasitophorous vacuole.^{2,3} The GRA1 protein is shown to have diagnostic value in toxoplasmosis and can stimulate apoptosis of monocytes.^{4,5} GRA1 may be essential, as knockout mutants of GRA1 were not obtained.³

Material Provided:

Each vial of NR-50264 contains approximately 100 µL of purified monoclonal antibody in PBS. The concentration, expressed as mg/mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-50264 was packaged aseptically in screw-capped plastic vials and is provided frozen on dry ice. The product should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:

NR-50264 is reported to react with GRA1 and to function in immunofluorescence and immunoblot assays.^{1,2,5}

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-*Toxoplasma gondii* Dense Granule Antigen 1, Clone T5 2B4 (produced *in vitro*), NR-50264."

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:

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References:

1. Dubremetz, J. F., Personal Communication.
2. Achbarou, A., et al. "Differential Targeting of Dense Granule Proteins in the Parasitophorous Vacuole of *Toxoplasma gondii*." *Parasitology* 103 (1991): 321-329. PubMed: 1780169.
3. Rommereim, L. M., et al. "Phenotypes Associated with Knockouts of Eight Dense Granule Gene Loci (*GRA2-9*) in Virulent *Toxoplasma gondii*." *PLoS One* 11 (2016): e0159306. PubMed: 27458822.
4. Pietkiewicz, H., et al. "Usefulness of *Toxoplasma gondii* Recombinant Antigens (GRA1, GRA7 and SAG1) in an Immunoglobulin G Avidity Test for the Serodiagnosis of Toxoplasmosis." *Parasitol. Res.* 100 (2007): 333-337. PubMed: 16896649.
5. D'Angelillo, A., et al. "*Toxoplasma gondii* Dense Granule Antigen 1 Stimulates Apoptosis of Monocytes through Autocrine TGF-β Signaling." *Apoptosis* 16 (2011): 551-562. Pubmed: 21390541.

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