

Toxoplasma gondii ROP4 RH2 - Purified

Catalog No.: AR10733PU-L

Quantity: 1 mg

Background: The life cycle of *Toxoplasma gondii* has two phases. The asexual phase takes place only in members of the Felidae family which makes these animals the parasite's primary host. The asexual part of the life cycle can take place in any warm-blooded animal, like other mammals (including felines) and birds. *T. gondii* constructs daughter scaffolds within the mother cell. In the intermediate hosts (including felines), the parasite invades cells, forming intracellular so-called parasitophorous vacuoles containing bradyzoites, the slowly replicating form of the parasite. Vacuoles form tissue cysts mainly within the muscles and brain. Since they are within cells, the host's immune system does not detect these cysts. Resistance to antibiotics varies, but the cysts are very difficult to eradicate entirely. Within these vacuoles *T. gondii* propagates by a series of binary fissions until the infected cell eventually bursts and tachyzoites are released. Tachyzoites are the motile, asexually reproducing form of the parasite. Unlike the bradyzoites, the free tachyzoites are usually efficiently cleared by the host's immune response, although some manage to infect cells and form bradyzoites, thus maintaining the infection.

Source: *E. coli*

Format: **Purity:** >95.0% pure as determined by 10.0% PAGE (coomassie staining).

Purification Method: Proprietary chromatographic technique.

Buffer System: 25mM Tris-HCl pH 8.0, 5mM Glutathione, 1.5M Urea and 50% Glycerol

Applications: *Toxoplasma* antigen is suitable for ELISA and Western blots, excellent antigen for detection of *Toxoplasma gondii* with minimal specificity problems. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Description: The *E. coli* derived recombinant artificial mosaic protein contains the ROP4 (RH2) immunodominant regions, the protein is fused to Glutathione transferase.

Specificity: Immunoreactive with sera of *Toxoplasma gondii*-infected individuals.

Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.