

Anti-Sporozoite of *Eimeria acervulina* [6D-12-G10] Standard Size Ab02200-23.0

This full-length, chimeric rabbit antibody was made using the variable domain sequences of the original Chicken scFv format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Rabbit IgG, Lambda

Clone Number: 6D-12-G10

Alternative Name(s) of Target: Sporozoite surface antigen; *Eimeria acervulina*

UniProt Accession Number of Target Protein: Q24769

Published Application(s): WB, ELISA, IF

Published Species Reactivity: *Eimeria acervulina*

Immunogen: The original antibody was generated by immunizing chicken with sporozoite antigen of *Eimeria acervulina*, which is a 20-21 kDa protein.

Specificity: This antibody recognizes and binds the apical complex of the sporozoite of *Eimeria acervulina*, which is a 20-21kDa protein.

Application Notes: Avian coccidiosis is caused by an intracellular protozoan belonging to the genus *Eimeria*. This disease is important in aviculture due to its negative effects on production and development of birds. Avian coccidiosis is one of the main causes of growth retardation, poor feed conversion and high mortality in intensive farming of broilers, cage-free pullets and breeders. This mAb recognizes the apical complex of the sporozoite in a western blot assay and ELISA. Immunoelectron microscopic examination revealed that the antibody stained the conoid antigen. In indirect immunofluorescence assay the culture supernatant containing the mAb intensely stained the tip of the *E. acervulina* sporozoites. It is also reported that this antibody inhibited the invasion of sporozoites in CD8+ T cells in vitro (PMID: 8627507). The scFv antibody was produced at a minimum of 7 mg l⁻¹ and exhibited virtually identical antigen reactivity as the original mAb (Min et al., 2001). mAb 6D-12-G10 shows cross reactivities in immunofluorescence staining at the apical end of sporozoites of *C. parvum* and *C. muris*, and merozoites of *C. parvum* (PMID:15725532). This mAb is also cross reactive with other species like Apicomplexan parasites, including other *Eimeria* spp., *Toxoplasma*, *Neospora*, and *Cryptosporidium* spp (PMID: 27384177)

Antibody First Published in: Sasai et al. Characterization of a chicken monoclonal antibody that recognizes the apical complex of *eimeria acervulina* sporozoites and partially inhibits sporozoite invasion of

cd8+ t lymphocytes in vitro. J Parasitol (1996); 82(1):82-7. [PMID:8627507](#)

Note on publication: Describes the generation of this antibody and its use in identifying the Eimeria sporozoite antigen that binds to CD8+ lymphocytes.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note - This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.