

Product description

Cryptococcus is a genus of environmental fungi, with most species commonly found in soil. Pathogenic members of this genus, particularly *Cryptococcus neoformans* and *Cryptococcus gattii*, are encapsulated by a gelatinous layer composed of capsular glycoproteins. This capsule plays a key role in nutrient acquisition and immune evasion. The capsule of *C. neoformans*, the most prominent human and animal pathogen in the genus, is distinguished by a high content of glucuronic acid and mannose residues, including O-acetyl groups, which contribute to its function as a major virulence factor. Monoclonal antibody Crp127 (clone 127) specifically recognizes capsular material on the surface of *C. neoformans* and *C. gattii* but does not bind to the capsule of the related species *C. laurentii*. Antigen recognition by Crp127 appears to be dependent on the presence of O-acetylation within the capsular polysaccharide.

Name: Anti-Cryptococcus [crp127]

Species Reactivity: *Cryptococcus gattii*; *Cryptococcus neoformans*

Host Species: Balb/c mouse

Clonality: Monoclonal

Isotype: IgM

Immunogen: Heat-killed cells and lysate of *C. neoformans* H99 (serotype A) and *C. gattii* R265 (serotype B)

Conjugate: N/A

Myeloma used: NS0

Applications: IF ; WB

Production details: Monoclonal antibody Crp127 (clone 127) was generated by immunizing BALB/c mice with a mixture of heat-killed and lysed *Cryptococcus neoformans* H99 and *Cryptococcus gattii* R265 cells. Fungal cultures were heat-inactivated at 65°C for 60 minutes, confirmed non-viable by plating, and mechanically lysed using bead-based disruption. Following hyperimmunization, splenocytes were harvested and fused with NS0 myeloma cells using polyethylene glycol to produce hybridomas. Screening of hybridoma supernatants was performed via epifluorescence microscopy using FITC-conjugated anti-mouse IgG and IgM antibodies to identify reactive clones. Clone 127 was selected for its specificity and cultured in RPMI 1640 supplemented with IgG-depleted FBS.

Contributor(s)

Inventor: Robin May

Institute: University of Birmingham

Properties

Concentration: 1 mg/mL

Storage buffer: PBS with 0.02% azide.

Purification: The antibody was purified by affinity chromatography.

Storage conditions: Product stable at -20°C when stored undiluted. Avoid repeated freeze-thaw cycles.

Directions for use: It is recommended that the antibody be titrated for optimal performance in each application.

References

- Probert et al. 2019. Infect Immun. 87(4):e00731-18. PMID: 30670549

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Anti-Cryptococcus [crp127] monoclonal antibody, was invented by Robin May at the University of Birmingham (CancerTools.org #153688).

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