

Supplementary Materials for

Anti-CotH3 antibodies protect mice from mucormycosis by prevention of invasion and augmenting opsonophagocytosis

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Supplementary Materials

Table S1. The *R. delemar* MGQTNDGAYRDPTDNN peptide is highly conserved among Coth proteins from other Mucorales.

| Mucorales | % Amino acid identity |
|-------------------------------------|------------------------------|
| <i>Rhizopus oryzae</i> | 100 |
| <i>Rhizopus microsporus</i> | 100 |
| <i>Mucor circinelloides</i> | 100 |
| <i>Lichtheimia corymbifera</i> | 92 |
| <i>Rhizomucor variabilis</i> | 82 |
| <i>Mortierella alpina</i> | 79 |
| <i>Syncephalastrum racemosum</i> | 79 |
| <i>Mucor racemosus</i> | 78 |
| <i>Saksenaea elongisporus</i> | 78 |
| <i>Cunninghamella bertholletiae</i> | 73 |
| <i>Saksenaea vasiformis</i> | 73 |
| <i>Apophysomyces elegans</i> | 71 |
| <i>Apophysomyces trapeziformis</i> | 71 |

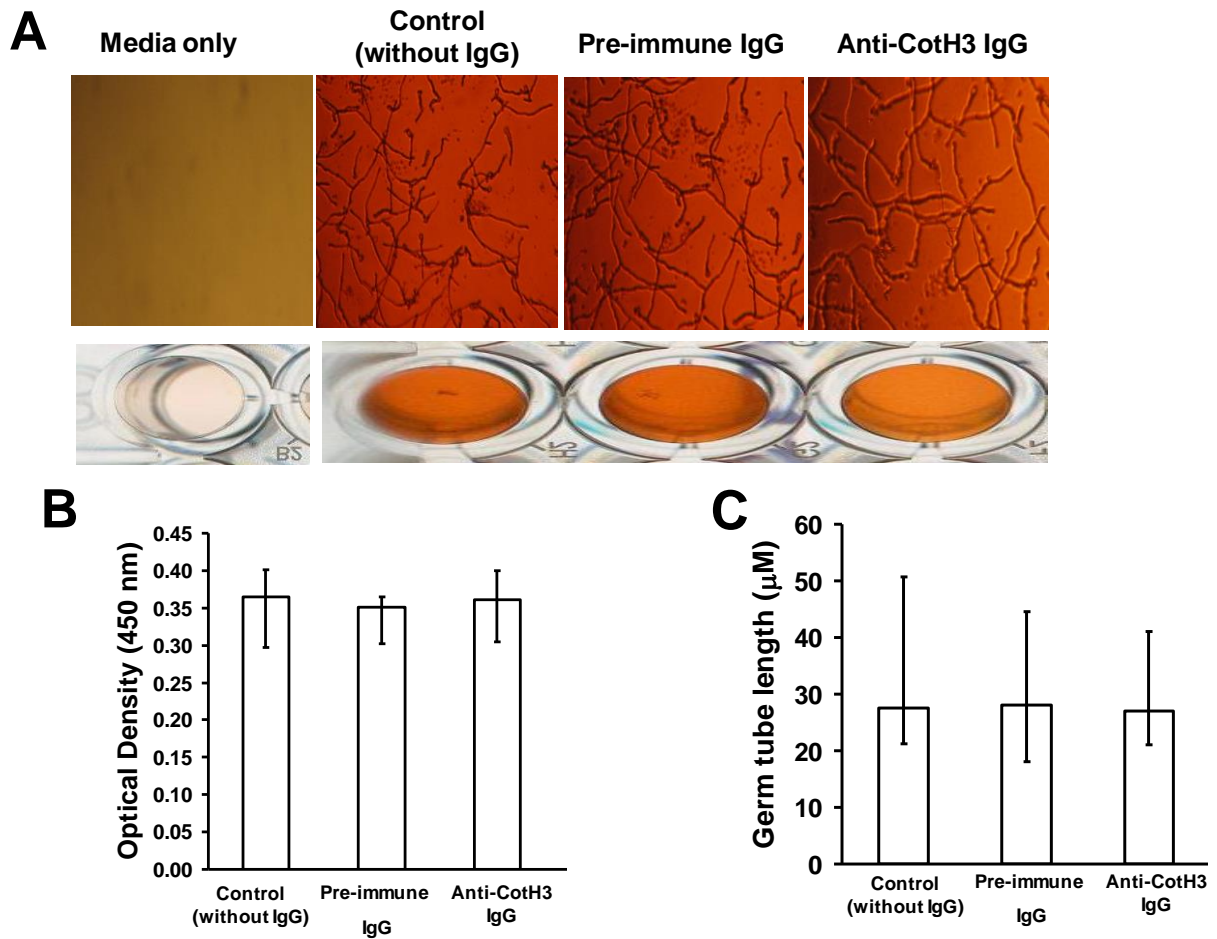


Fig. S1. Effect of anti-CotH3 antibodies on the metabolic activity and germination of *R. delemar*. Effect of anti-CotH3 antibodies (purified IgG at 100 µg/ml) on the metabolic activities (**A, B**) and germination (**C**) of *R. delemar* 99-880. Metabolic activity of the fungus was measured by XTT assay.

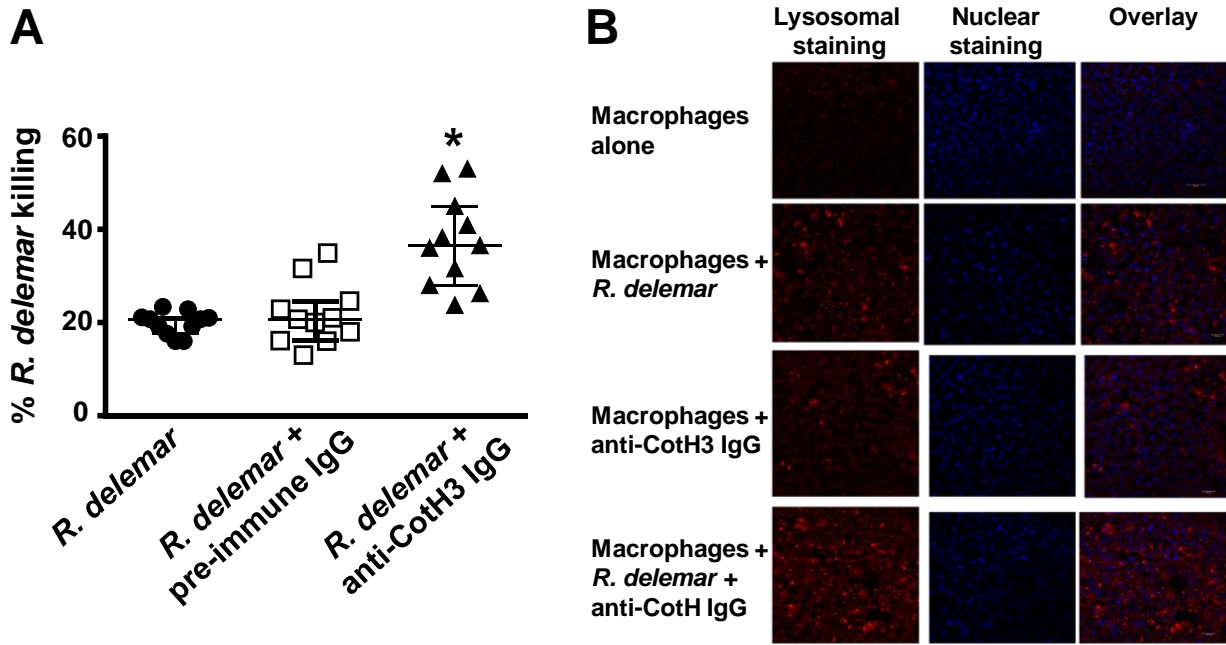


Fig. S2. Anti-CotH3 antibodies enhance murine macrophage killing of *R. delemar* ex vivo through maturation of the phagolysosome. Anti-CotH3 antibodies (purified IgG) enhance murine macrophage killing of *R. delemar* ex vivo (**A**) through maturation of the phagolysosome (**B**).

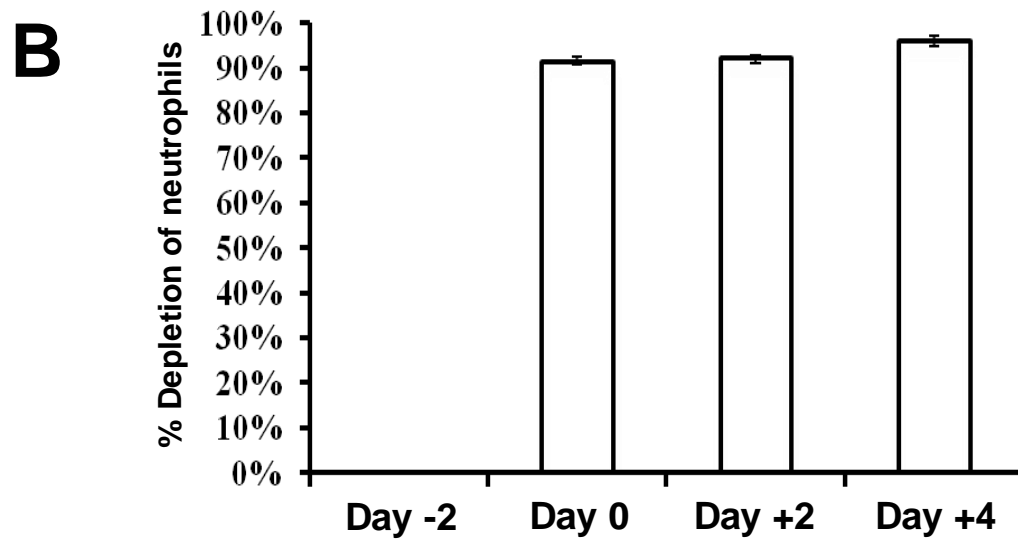
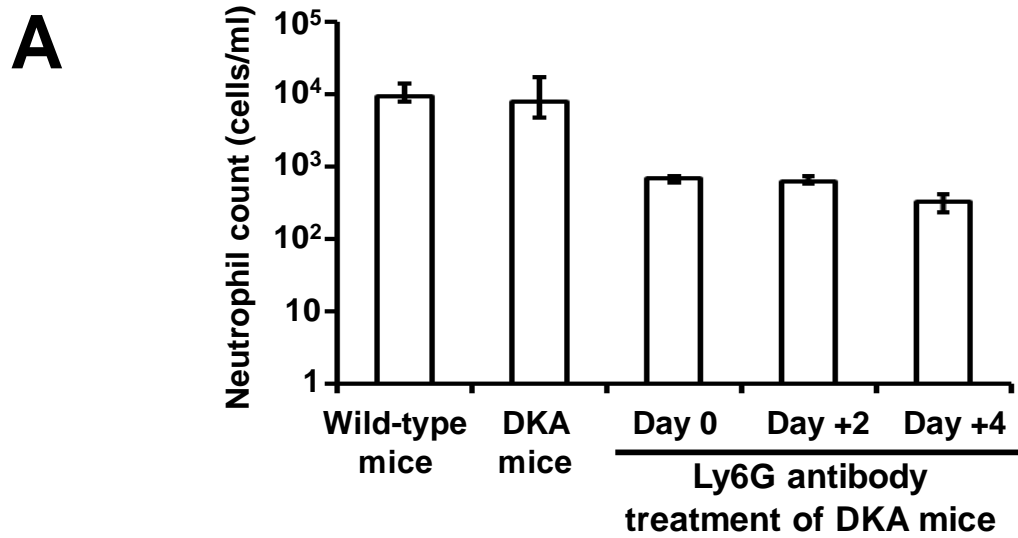


Fig. S3. Induction of neutropenia in DKA mice by treatment with anti-Ly6G antibody.

Treatment of DKA mice with anti-Ly6G antibody results in >90% reduction in circulating neutrophils for at least 4 to 6 days post infection with *R. delemar* (A and B).

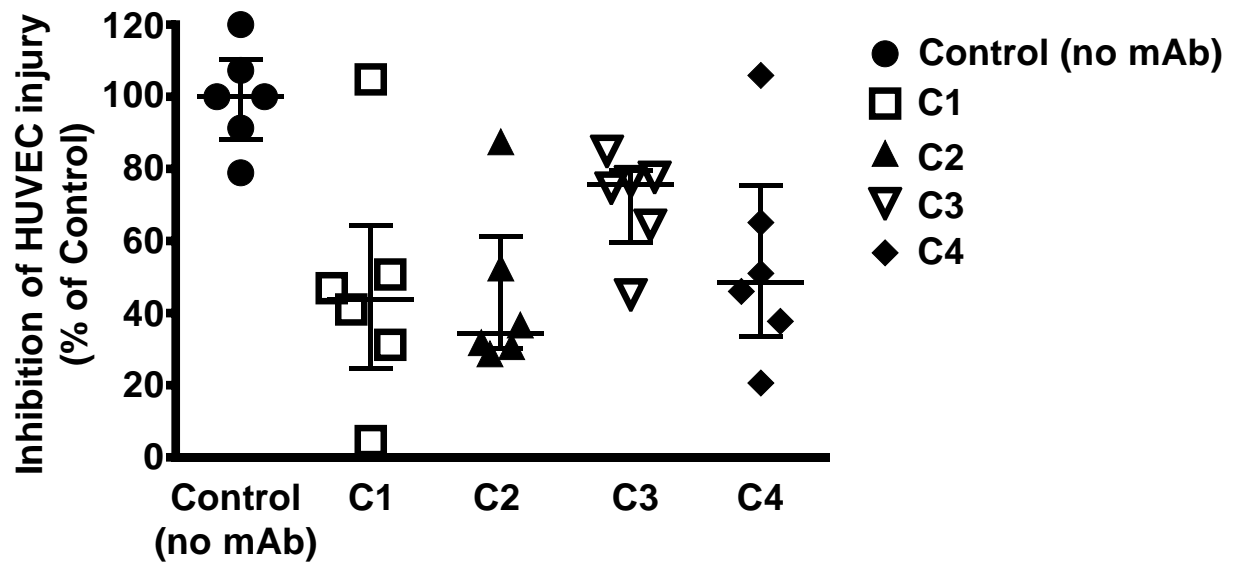


Fig. S4. Screening for protective monoclonal anti-Coth3 antibodies using ^{51}Cr -release assay.

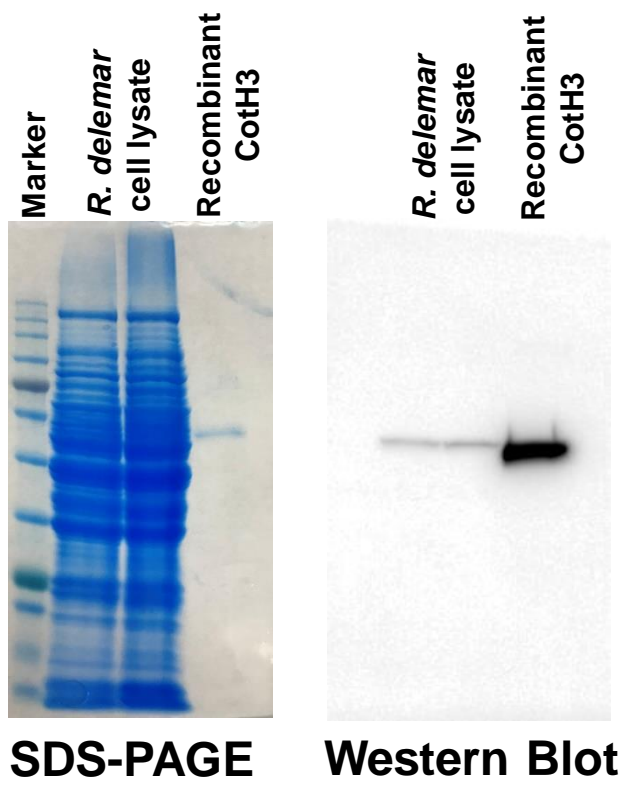


Fig. S5. Recognition of native and recombinant *R. delemar* CotH3 protein by monoclonal anti-CotH3 antibody.

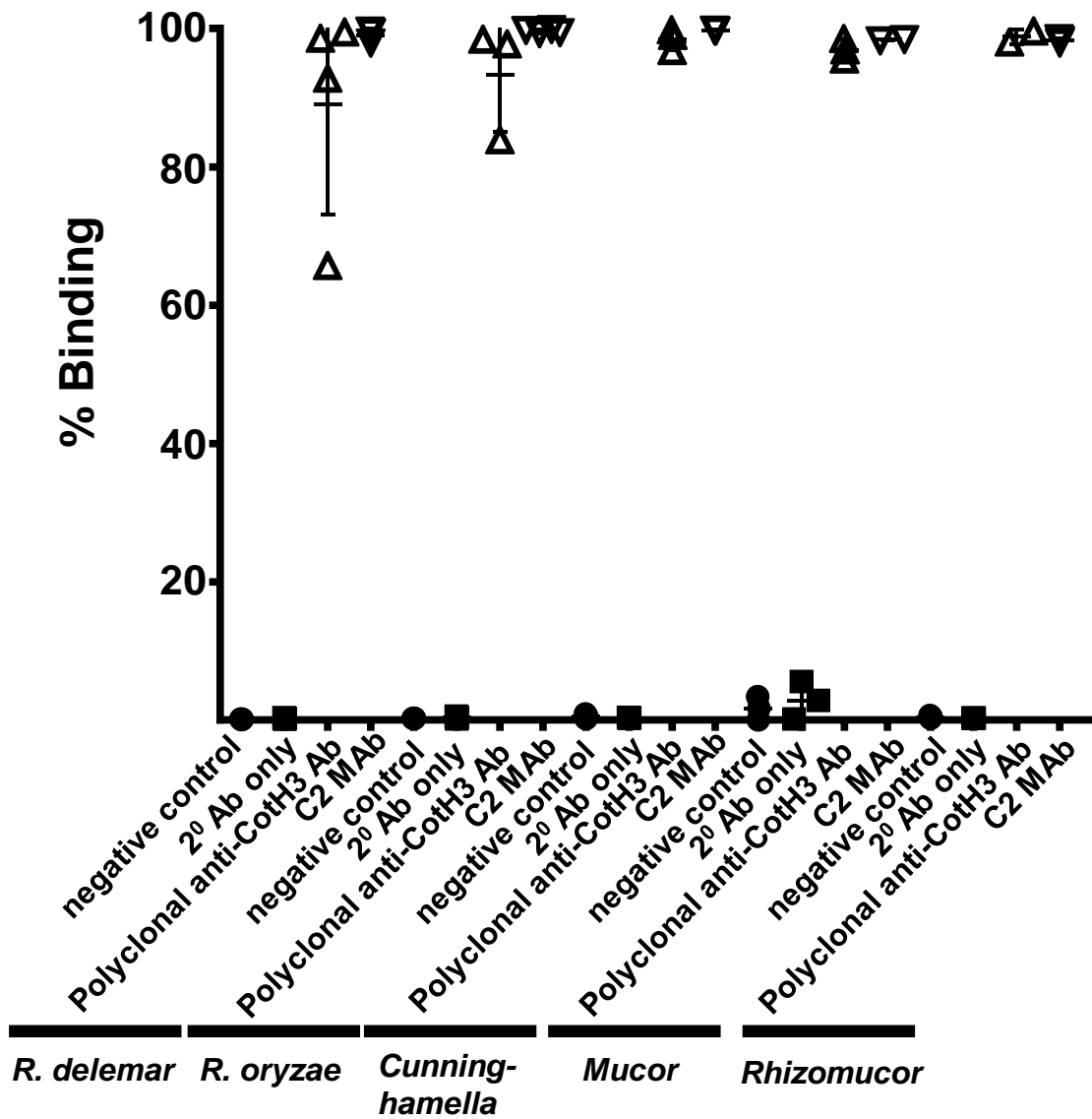


Fig. S6. Percent binding (relative to negative control without antibodies) of monoclonal C2 and polyclonal anti-CotH3 antibodies to different Mucorales.