

Figure S1. Representative images of IHC staining of brain autopsy tissues with *Borrelia* and alginate specific antibodies. Sections containing *Borrelia* positive aggregates (green staining: Panels **A** and **E**) were further analyzed for alginate presence using a sequential section stained with alginate-specific antibody (red staining: Panels **B** and **F**) respectively. As a negative control, normal human brain tissue was stained with the same *Borrelia* and alginate antibodies (Panels **I** and **J**). Non-specific IgG antibody was used as an additional negative control in the infected and normal tissues (Panels **C**, **G**, and **K**). Differential interference microscopy (DIC) showing the size and tissue morphology of the tissues (Panels **D**, **H**, and **L**). Scale bars: 200 μ m.

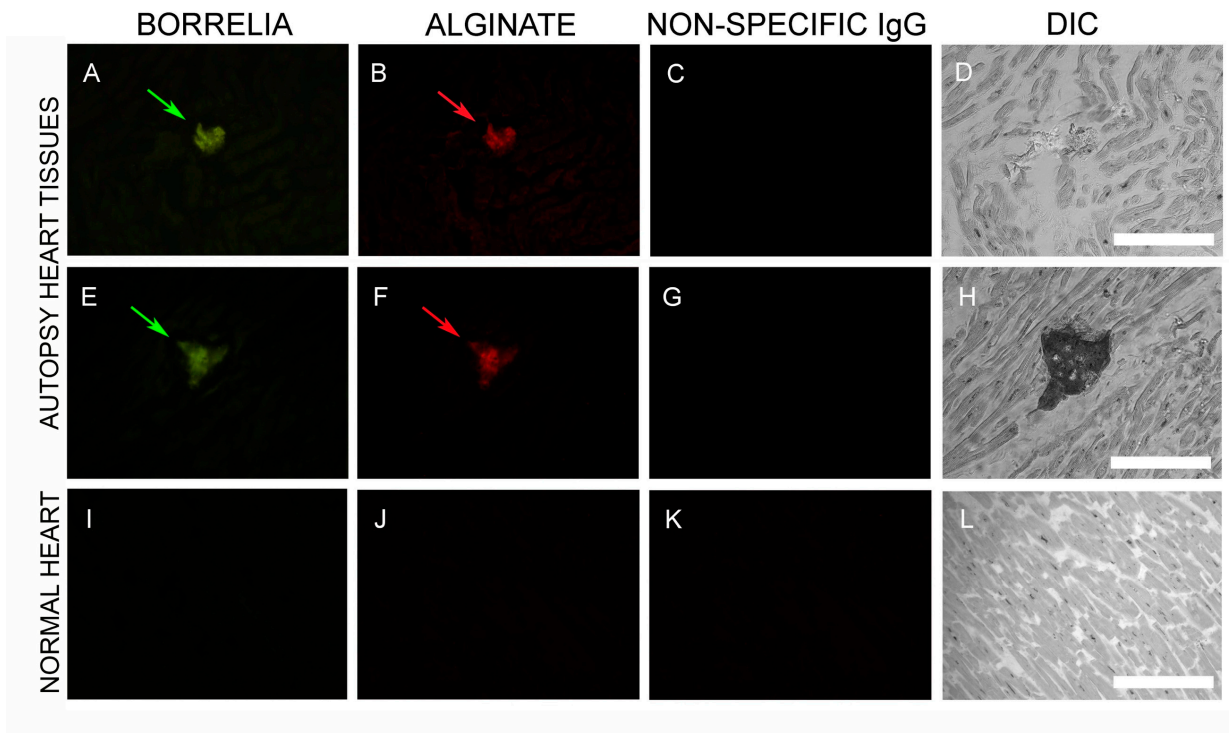


Figure S2. Representative images of IHC staining of heart tissues with *Borrelia* and alginate specific antibodies. Sections containing *Borrelia* positive aggregates (green staining: Panels A and E) were further analyzed for alginate presence using a sequential section stained with alginate-specific antibody (red staining: Panels B and F) respectively. As a negative control, normal human brain tissue was stained with the same *Borrelia* and alginate antibodies (Panels I and J). Non-specific IgG antibody was used as an additional negative control in the infected and normal tissues (Panels C, G, and K O). Differential interference microscopy (DIC) showing the size and tissue morphology of the tissues (Panels D, H, and L). Scale bars: 200 μ m.

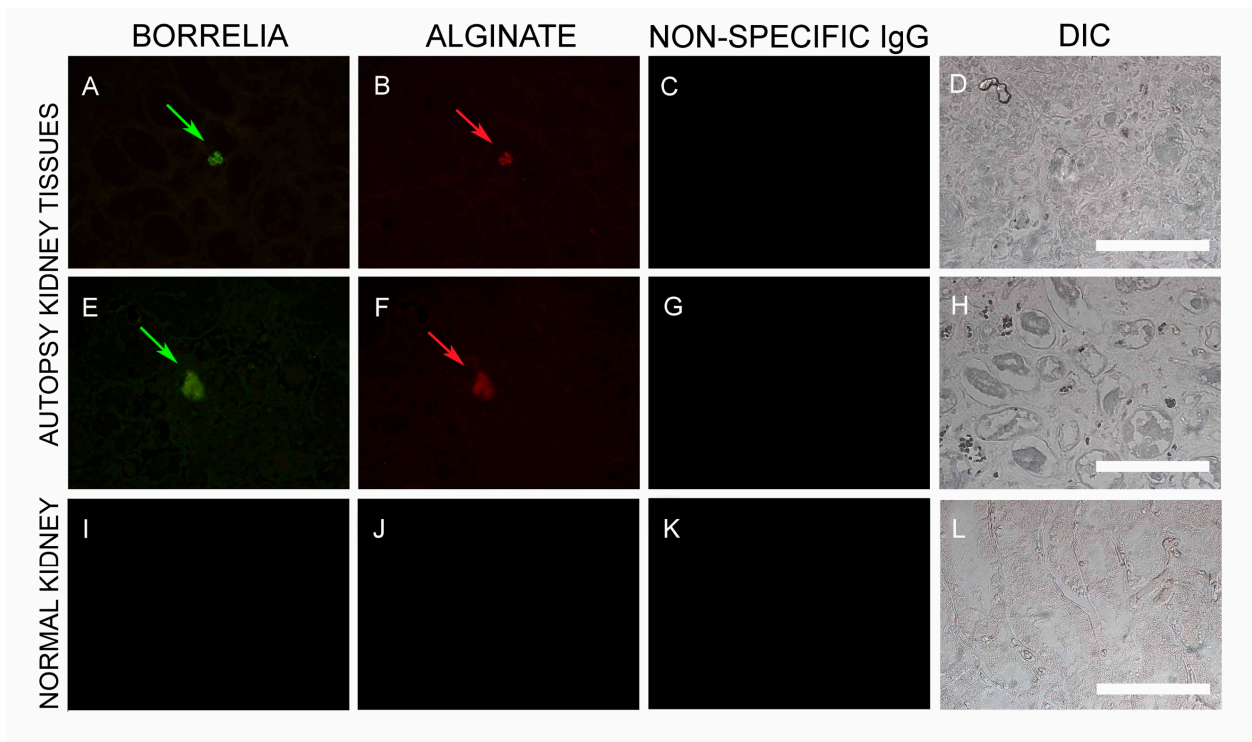


Figure S3. Representative images of IHC staining of kidney tissues with *Borrelia* and alginate specific antibodies. Sections containing *Borrelia* positive aggregates (green staining: Panels A and E) were further analyzed for alginate presence using a sequential section stained with alginate-specific antibody (red staining: Panels B and F) respectively. As a negative control, normal human brain tissue was stained with the same *Borrelia* and alginate antibodies (Panels I and J). Non-specific IgG antibody was used as an additional negative control in the infected and normal tissues (Panels C, G, and K O). Differential interference microscopy (DIC) showing the size and tissue morphology of the tissues (Panels D, H, and L). Scale bars: 200 μ m.

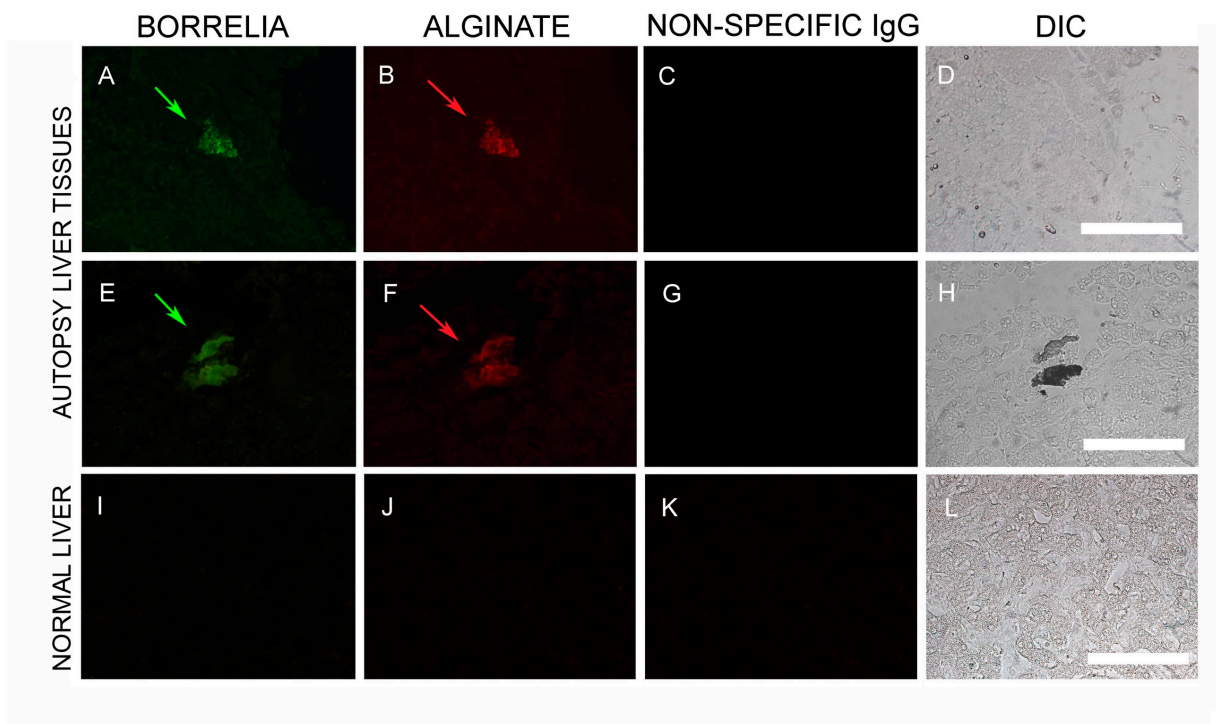


Figure S4. Representative images of IHC staining of liver tissues with *Borrelia* and alginate specific antibodies. Sections containing *Borrelia* positive aggregates (green staining: Panels A and E) were further analyzed for alginate presence using a sequential section stained with alginate-specific antibody (red staining: Panels B and F) respectively. As a negative control, normal human brain tissue was stained with the same *Borrelia* and alginate antibodies (Panels I and J). Non-specific IgG antibody was used as an additional negative control in the infected and normal tissues (Panels C, G, and K O). Differential interference microscopy (DIC) showing the size and tissue morphology of the tissues (Panels D, H, and L). Scale bars: 200 μ m.

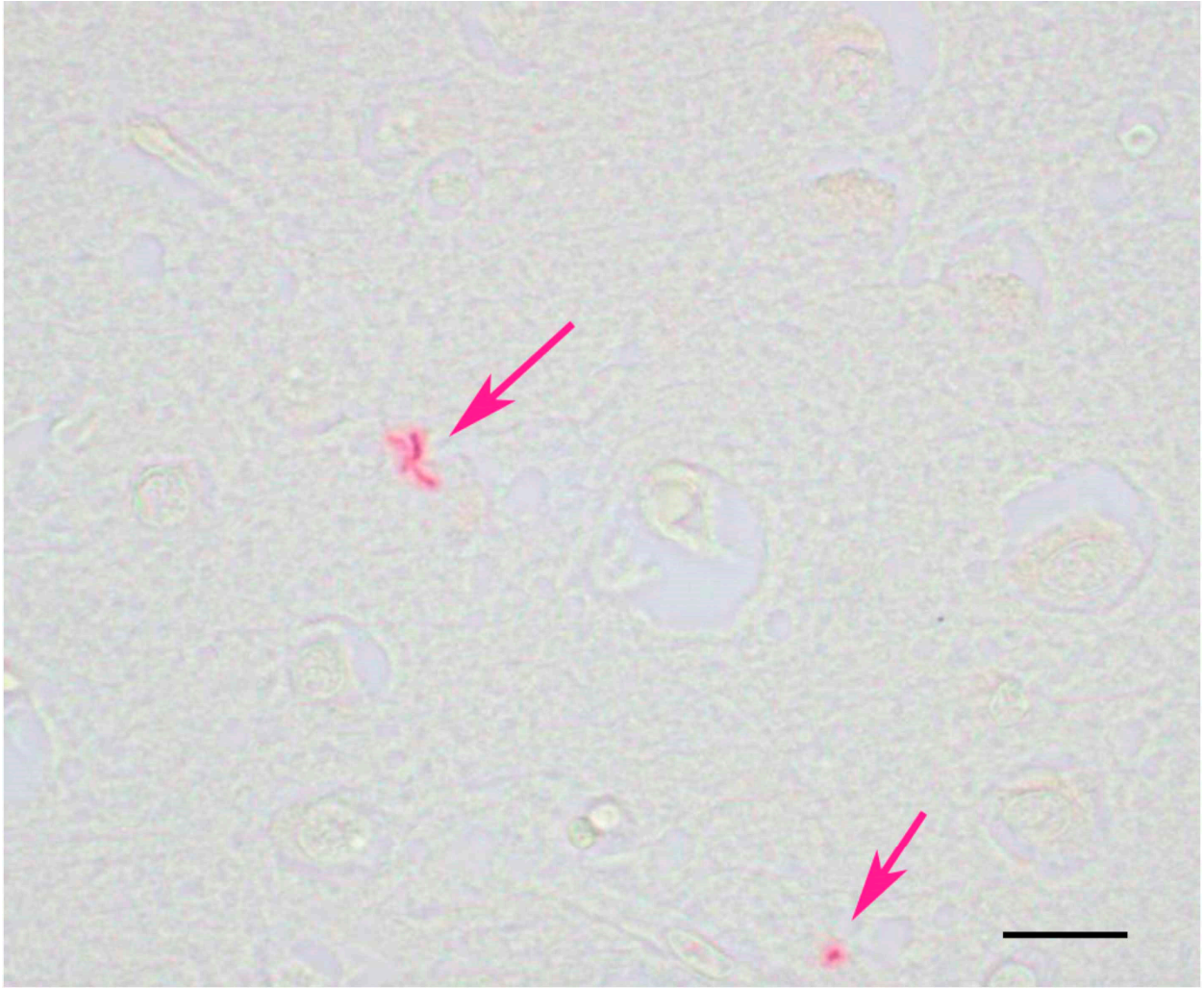


Figure S5. Representative image of IHC staining of a brain tissue for *B. burgdorferi* (red staining with red arrows) at the site of cerebral vasculitis. The IHC was performed at the Innsbruck Medical Center as described previously (x). Scale bar: 10 μ m.