
Preliminary characterization of IgT1 and IgT2 immunoglobulin isotypes in systemic and mucosal tissues in carp

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The main components of humoral immune response in fish are IgM, IgD and IgT immunoglobulins. IgT was described initially as an immunoglobulin responsible for immune response at mucosal surfaces. However, currently it is known to play a role in both systemic and mucosal compartments. So far, two variants of IgT (IgT1 and IgT2) have been described in common carp. However, due to the lack of specific tools, no functional studies have been conducted on IgT in carp. In this study, we describe the generation and validation of IgT1 and IgT2-specific tools and provide a preliminary characterization of the tissue distribution of IgT1⁺ and IgT2⁺ B cells, as well as of the abundance of soluble IgT1 and IgT2 in mucosal and systemic tissues of naïve and infected carp. In this poster, we will give preliminary characterization of IgT1 and IgT2 immunoglobulin isotypes and show that IgT1, similarly to IgM is preferentially expressed and responds to systemic stimuli, whereas IgT2 is preferentially present in mucosal tissues of carp.