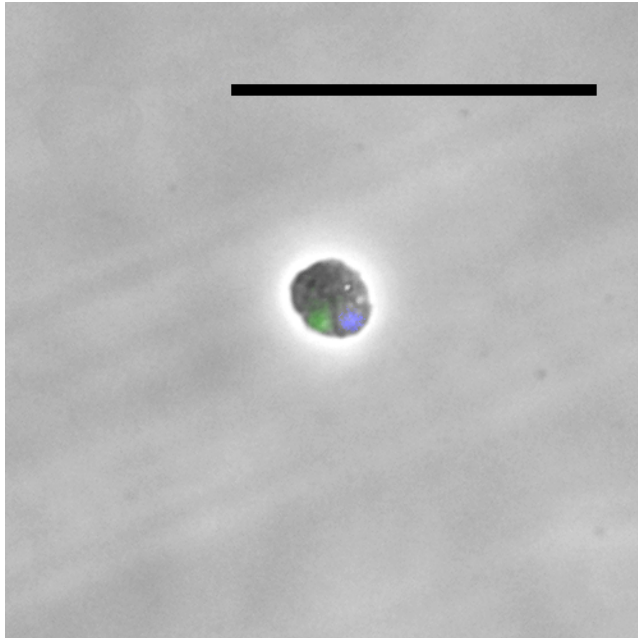


**a**

NP\_571565.1| major histocompatibility complex class II integral membrane alpha chain precursor [Danio rerio]  
 MFFLALRKMEVYVFILTLVSVFVSSEVNVVHEDIVMDGCSDEKEYISVLDGEEMYHT  
 DFSGKRGEMTLPDFADPFTYPTGTYEQSLADYETCKHNLDFVAAKAYKSPLEKLDPPQT  
 SIYSRDDVQPDIEKLIHVVTGFFPPPVRVSWTKNNEIVTEGMSVSQYRPNNNDGTYN  
 IFSTLRFPTVEGDIYSCSVNHKTLEQPQTKAWEVEVAMPVSGPAVFCGVGLFLGLLG  
 VAAGTFFLIKGNNCN

<i>D. rerio</i>	LICHVTGFF <b>PPPVRVSWT</b> KNNEIVTEGMSVSQYRPNNNDG
<i>L. calcarifer</i>	LICHVSGFY <b>PAPVNVSWT</b> KNEQKVTEGTSINVPFPLKDG
<i>M. zebra</i>	LICHVTGFI <b>PAPVNVSWT</b> KNGQKVT-GSSINVPYPNKDG
<i>O. niloticus</i>	LICHVTGFI <b>PAPVNVSWT</b> KNQKVT-GSTINVPYPNKDG
	*****:**:*.***.****** : ***** : : . * : **

**b**



**S2 Fig. Rabbit Anti-zebrafish MHCIIa (Sapphire Bioscience)**

a) Synthesised peptide amino acid sequence, showing MHCIIa antigen (green) and MHCII-Ig superfamily domains (purple). Alignment: A subsection of exon from *L. calcarifer* partial gDNA sequence is highly conserved across *D. rerio*, *L. calcarifer*, *M. zebra* and *O. niloticus*. A B-cell epitope region is indicated (shaded, bold) showing very high conservation across several fish orders (Standard ClustalW2 notation to indicate similarity/identity). b) Co-staining of B-lymphocyte from *L. calcarifer* with rabbit anti-zebrafish MHCIIa antibody (green), sheep anti-barramundi IgM (blue)