

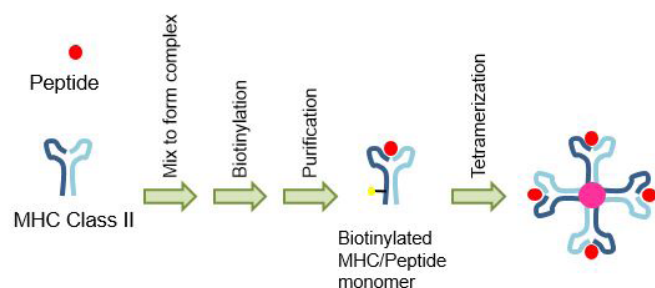
Class II Tetramers

14 Human and Mouse Alleles Available

Stay up to date with Class II tetramer offerings from MBLI. Detect CD4+ T Cell with ease and reliability

T cell receptors (TCRs) expressed on the surface of T cells specifically recognize and bind to complexes of major histocompatibility complex (MHC) molecules and peptide fragments. CD4+ T cells, which include helper and regulatory T cells, recognize complexes of MHC class II molecules and peptide.

CD4+ T cells play an important role in health and diseases. Analysis of these cells has long been hampered by a lack of suitable assays. Class II tetramers have become an important tool to investigate rare antigen-specific CD4+ T cells such as CD4+CD25+ regulatory T cells. In addition to monitoring disease progression and therapeutic intervention, class II tetramers can be used to study tolerance induction, vaccination efficacy, and autoimmunity.



MHC tetramers are complexes of four MHC molecules, associated with a specific peptide and bound to a fluorochrome. Class II tetramers bind to a distinct population of CD4+ T cells.

MHC class II tetramer staining is more technically challenging than class I tetramer staining.

- Antigen-specific CD4+ T cells are more rare than antigen-specific CD8+ T cells
- Affinity between the T cell receptor and MHC/peptide complex is generally lower
- Acquisition of 100,000-200,000 CD4+ T cells is typically required
- Exclusion gating essential
- T cell expansion and/or pre-enrichment may be required

Alleles Available

DRB1*11:01	DPB1*04:01	DRB1:04:05
DRB1*15:01	DRB1*01:01	DRB1*07:01
DRB1*15:02	DRB1*03:01	DRB1*08:03
DRB4*01:01	DRB1*04:01	DRB1*09:01
I-Ab		I-Ad
I-Ab	I-Ad	I-Ag7