

# Choosing the Ideal Immunogen for TCR-like Antibody Development

## - Custom MHC Monomer Services -

### MHC Tetramers

Useful Tools for Immune Monitoring

Infection Cancer immunology

Cell therapy Autoimmunity T cell neoantigen

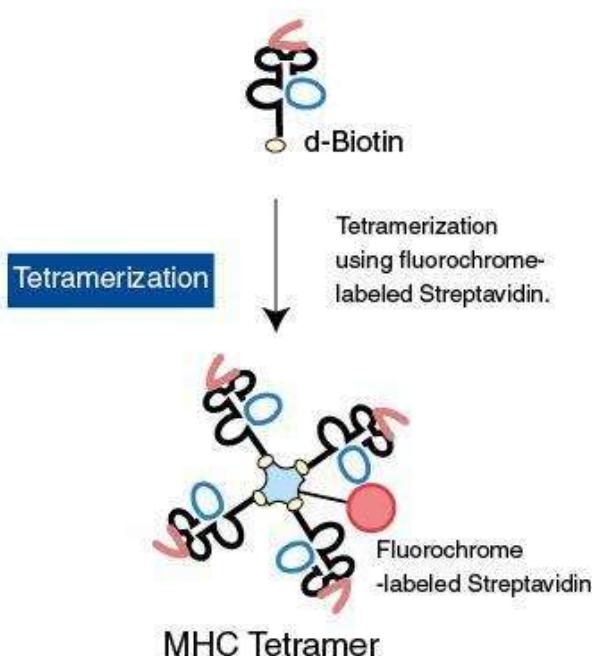
Transplantation DC vaccine CAR-T CD 4 CD 8

## Featured Services

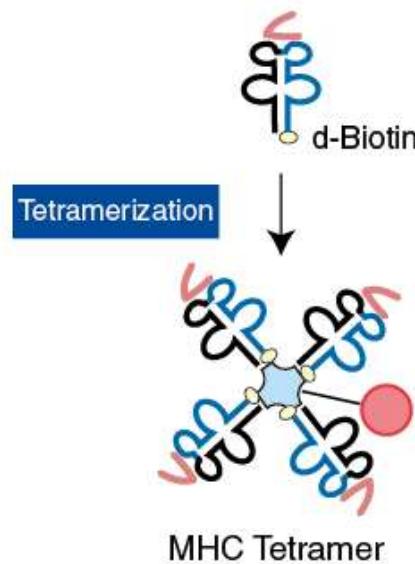
- [MHC Class I custom Tetramer, Monomer](#)
- [MHC Class II custom Tetramer, Monomer](#)

The **MHC Monomer** is a sub-component of an MHC Tetramer, made up of the MHC complex ( [\$\alpha\$ -chain plus  \$\beta\$ -2 microglobulin for class I](#) or  [\$\alpha\$ -chain plus  \$\beta\$ -chain for class II](#)) folded together with a specific peptide. Biotinylated Monomers are available for most associated Tetramer products.

### Class I MHC Monomer



## Class II MHC Monomer

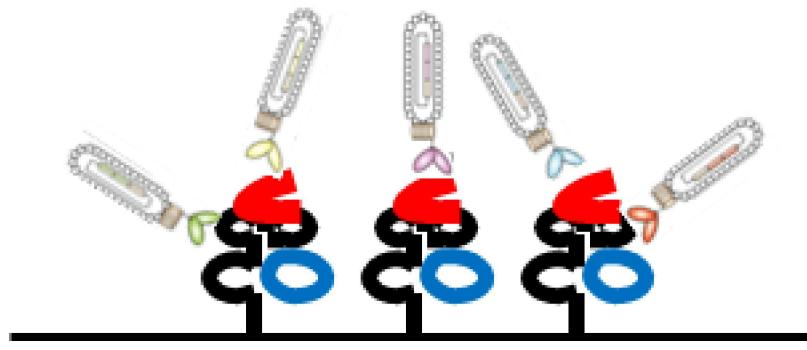


Researchers commonly use MHC monomers for a variety of applications, such as:

1. **Generating tetramers in their own labs with custom labels**
  - allowing flexibility in fluorochrome selection or experimental design.
2. **Using them as antigen-presenting platforms**
  - to stimulate and expand peptide-specific T cells *in vitro*.
3. **Employing them as immunogens for TCR-like antibody development**
  - leveraging the defined presentation of peptide-MHC complexes.

**TCR-like antibodies** are gaining attention for their potential in medical applications, particularly in cancer immunotherapy and infectious disease research. These antibodies mimic the specificity of T cell receptors by recognizing peptide-MHC (pMHC) complexes, enabling highly targeted immune responses.

To generate such antibodies, selecting an appropriate immunogen is critical. MHC monomers are considered promising immunogen candidates for this purpose, given their defined presentation of pMHC complexes. This approach may support the development of high-affinity TCR-like antibodies through immunization or screening strategies.



Phage display screening for pMHC-specific scFvs (TCR-like antibodies)

MBL has a long line of expertise and knowledge for manufacturing MHC tetramers and monomers. These skills allow our team to provide high quality and reliable custom MHC tetramers or monomers according to your needs.

We are proud to be your trusted supplier for providing your custom MHC tetramer or biotinylated monomer.



MBL Character, AZ Goes Peptide Mode: Forming a Complex with MHC!

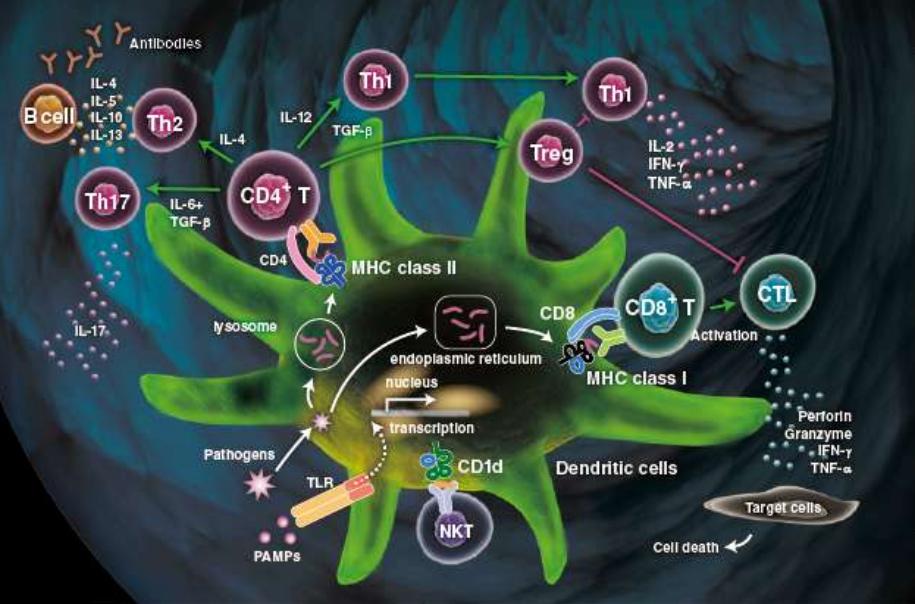
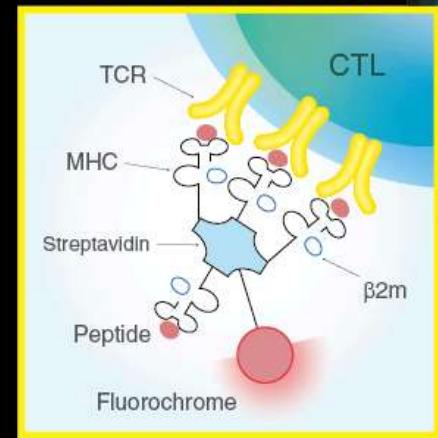
**Contact Us For Custom MHC Tetramers And Monomers!**

## Related Products

- [MHC Tetramer](#)

Reagent for direct detection of antigen-specific T cells

## MHC Tetramer



Contact us!

Stay tuned for more updates and product information in our upcoming newsletters!

Thank you for choosing MBL for your biological research needs.

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