Xynapse™

Activation and Expansion of Antigen-Specific T Cells

Eliminate the hassle and variability of antigenspecific activation and expansion of T cells and TCR-T cells with peptide-pulsed antigenpresenting cells (APCs).

Instead, use Xynapse[™]-T reagents - robust, **non-cellular antigen presenting molecules** that elicit activation of antigen-specific T cells comparable to peptide-pulsed APCs.

→ Backbone → CD28 engager → Peptide → MHC Each scaffold presents optimally clustered pMHC complexes of your choice (signal 1) and CD28 engagers (signal 2).

Strong Expansion of Antigen-Specific T Cells

Like APCs, Xynapse[™]-T reagents trigger expansion of antigen-specific T cells exclusively resulting in strong enrichment of these cells.

In contrast, such enrichment cannot be achieved with aCD3/aCD28 T cell activation reagents, which indiscriminately stimulate all T cells.

PBMCs from five healthy donors were stimulated with Xynapse[™]-T A*0201/ MART-1/aCD28 reagent, and the frequency of MART1-specific cells was analyzed using HLA-A*0201/MART-1 Dextramer[®].

Expansion of MART-1 specific T cells was observed in 3 out of 5 healthy donors.



	Donor 1	Donor 2	Donor 3	Donor 4	Donor 5
Day O	0.0	0.0	0.0	0.0	0.0
Day 13	0.0	0.3	2.7	1.3	0.0
Day 33	0.0	4.3	8.4	86.2	0.0

2.5 million PBMCs from each donor were stimulated with Xynapse[™]-T at day 0 and 14. Cells were kept at 37 °C with media exchange every 2-3 days with media containing IL-2. At day 0, 13 and 33, aliquots of stimulated cells were analyzed by flow cytometry.

Why Use Xynapse[™]-T?

Substitute for APCs in potency testing and antigen challenge assays:

- Comparable induction of cytokines and enrichment of engineered T cells
- Similar cell phenotype

Quicker and easier alternative to APCs:

- Time saver no need to pre-culture cells
- **Flexibility** ready-to-use reagents
- Reliability avoid APC-derived biological variation

Xynapse[™] gives us much greater flexibility – we can just do the potency assay tomorrow.

QC Scientist, TCR-T Cell Therapy Company

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A Molecular Mimic of Nature's Design



Want to see more results?

Our collaborators have tested the performance of Xynapse[™]-T.

The results show that Xynapse[™]-T can stimulate engineered TCR-T cells in an antigen-specific manner comparable to APCs, resulting in:

- Cytokine secretion and activation biomarker expression
- Enrichment of TCR engineered T cells
- Phenotype similar to cells activated by APCs

Contact us and we will be happy to present these results to you.

Xynapse[™] is a time saver – no need for pre-culturing or preparation of a cell bank.

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Ordering Information

Xynapse™-T reagents are available with a broad range of MHC class I and II, CD1d and MR1 alleles of human origin. We also recommend including a negative control reagent.

 Product Description
 Size

 Xynapse™-T, pMHC/aCD28
 100 μl / 250 μl



Looking for other costimulatory or coinhibitory molecules? Contact us !

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For research use only. Not for use in diagnostic or therapeutic procedures.

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