Flow-TriCEPS™ Service and Kit

Flow-TriCEPS™ technology is a tool to perform pretests for your target identification studies on the living cells for drug candidates/ligands such as peptides, antibodies, ADC’s, proteins.

- Identify the best cell type to use in your target identification experiment
- Identify the optimal binding conditions for binding of your drug candidates/ligands on the living cells
- Identify co-factors needed for binding to the cells of your drug candidates
- Perform functional assays with Flow-TriCEPS™ coupled drug candidates/ligands

Figure 1: Flow cytometry results using ligands coupled to Flow-TriCEPS™ Version 2.0. The biotin group of the Flow-TriCEPS™ is detected using Streptavidin conjugated with R-Phycoerythrin.

- Which cell types express the unknown targets of my ligand / drug candidate?
- What is the best condition for ligand incubation (temperature, pH, time)?
- Are there any co-factors needed for optimal ligand binding?

Flow Cytometry TriCEPS™ enables direct visualization of the binding of your ligand of interest to its unknown targets without the need of any detection antibodies. Your ligand is coupled to Flow-TriCEPS™ Version 2.0 through its primary amines (N-term and lysines), the ligand binds to its targets on the living cells and the biotin of Flow-TriCEPS™ is detected using a streptavidin fluorophore by flow cytometry.

Figure 2: Dot blot to control coupling of Flow-TriCEPS™ to the ligands of interest. Negative control: Flow-TriCEPS™ alone respectively coupled with glycine does not bind to the nitrocellulose membrane.
LRC-TriCEPS™ Publications

Identification of Putative Receptors for the Novel Adipokine CTRP3 Using Ligand-Receptor Capture Technology
Li Y., Ozment T., Wright GL., Peterson JM. (with support of Dualsystems)

Serum stimulation of CCR7 chemotaxis due to coagulation factor XIIa-dependent production of high-molecular-weight kininogen domain 5
Current Issue – vol. 113 no. 45 – Manish P. Ponda, E7059–E7068, doi: 10.1073/pnas.1615671113
Contributed by Jan L. Breslow, September 23, 2016 (sent for review August 1, 2016; reviewed by Myron Cybulsky and Carl F. Nathan) - Manish P. Ponda and Jan L. Breslow (with support of Dualsystems)

Identification of cell surface receptors for the novel adipokine CTRP3
April 2016, The FASEB Journal, vol. 30 no. 1 Supplement 1249.2 - Jonathan M. Peterson (with support of Dualsystems)

Laminin targeting of a peripheral nerve-highlighting peptide enables degenerated nerve visualization
Contributed by Roger Y. Tsien, August 3, 2016 (sent for review November 16, 2015; reviewed by Joshua E. Elias and Jeff W. Lichtman)

Direct identification of ligand-receptor interactions on living cells and tissues
Nature Biotechnology 30, 997–1001 (2012) doi: 10.1038/nbt.2354 – Received 06 April 2012 Accepted 08 August 2012 Published online 16 September 2012
Andreas P Frei, Ock-Youm Jeon, Samuel Kilcher, Hansjoerg Moest, Lisa M Henning, Christian Jost, Andreas Plückthun, Jason Mercer, Ruedi Aebersold, Erick M Carreira & Bernd Wollscheid