TRANSPORTER PEPTIDES

CAMBRIDGE RESEARCH BIOCHEMICALS

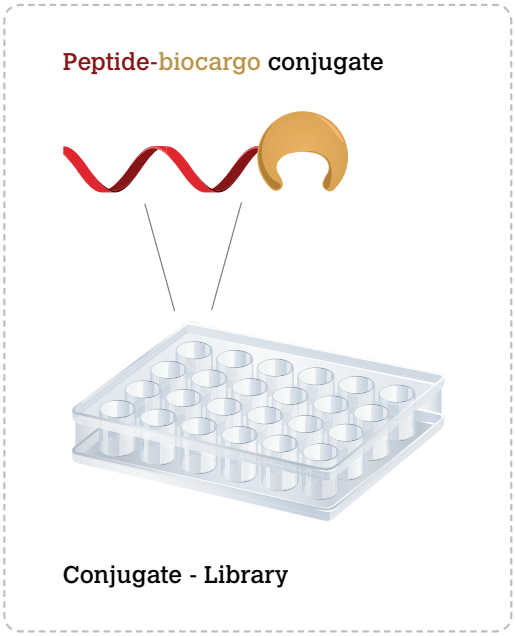
Transporter™ Peptide Library

Cambridge Research Biochemicals (CRB) has recently acquired the rights to a novel and patentable method, SELPEPCON™ for parallel assembly of a large number of peptide-therapeutic cargo combinations.

CRB is now offering custom-made libraries of peptide-cargo conjugates to help accelerate the delivery and development of new therapeutics.

The SELPEPCON™ method originated at the **Medical Research Council's Laboratory of Molecular Biology**, where scientists have been working to develop cell-penetrating peptides capable of carrying therapeutic drug cargoes into cells.

A library of cell-penetrating peptide (CPP)-cargo conjugates for the rapid identification of optimal carriers.



Products

Product No.	Description
PL-17-0001-24	Catalogue library (24-member)*
Quotation	Custom library (24-member)
Quotation	Custom library (48-member)
Quotation	Custom library (96-member)

*A catalogue CPP library of 24 widely varying sequences selected from published scientific literature, such as Penetratin, Tat, R9, pVec… conjugated to the peptide nucleic acid or the peptide of your choice.

The SELPEPCON™ method was licensed to CRB on 5 September 2013 by MRC Technology on behalf of the MRC.

MRC Laboratory of Molecular Biology

For further information visit www.crbdiscovery.com/peptides

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What is SELPEPCON™?

SELPEPCON™ (SELection of PEPtide CONjugates) is a novel method to boost throughput of synthesis of peptide conjugates of bio-cargoes, for example **Peptide Nucleic Acids (PNA)**, oligonucleotides and peptides, for applications such as cell screening in early stage drug development.

Benefits

- Cost-effective, no more limitation to one or two known CPPs
- Labour-free, our conjugates are ready to use
- Libraries can be tailored to your needs

Conjugation

The library of peptides is synthesised with alkyne attachments. Cargoes are synthesized with an azide functional group and a releasable affinity tag. After "Click" conjugation, conjugates are immobilized through the affinity tag and released through a reductive step. The resulting conjugates contain a free thiol group, which may be capped off if required.

The purification method does not involve costly HPLC and generally gives conjugates pure enough (5-10 nmol) to use directly in cell assays. Catalogue peptide libraries are conjugated through their N-termini, but custom libraries can be designed for functionalization at either end. Cargoes can in principle be designed for conjugation through either end, depending on cargo synthesis method, but N-terminal conjugation is particularly recommended and may result in higher overall yields.

Cargo Types

The technology is available immediately for PNA and peptide cargoes. SELPEPCON™ was first used with a PNA cargo for mRNA splicing modulation† but has also been used with a peptide cargo. The technology is also suitable in principle for peptide conjugates of a Phosphorodiamidate Morpholino Oligonucleotide (PMO) cargo and is under development (Please enquire).

SELPEPCON™ is applicable and adaptable in principle to standard oligonucleotide and siRNA cargoes and CRB would be interested to hear from potential partners for such a service.

† *Parallel synthesis and splicing redirection activity of cell-penetrating peptide conjugate libraries of a PNA cargo*
Peter J Deuss, Andrey A Arzumanov, Donna L Williams and Mike J Gait, MRC-LMB
Org. Biomol. Chem. 2013

MRC Laboratory of Molecular Biology

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