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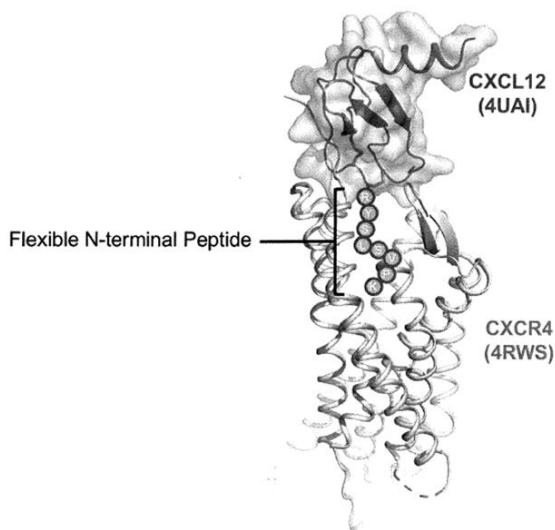
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Licensing Opportunity

TTO - Technology Transfer Office

Engineered CXCL12 ligand - CXCR4 receptor signaling complexes for enhanced chemotaxis



General CXCR4: CXCL12 architecture

Ref. Nr

6.2307

Keywords

Peptide-sensing receptors
Anti-cancer therapy
Tumor infiltration
immune cells

Intellectual Property

EP 22165413.0

Publications

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Description

Protein-peptide interactions play an important role in major cellular processes and are associated with several human diseases.

Here, we propose a series of engineered signaling complexes composed of variants of the CXCL12 ligand and/or the CXCR4 receptor that present the ability to trigger potent cell chemotaxis when expressed in human immune cells.

Advantages

CXCR4 receptor is an important therapeutic target in oncology and is related to immune cell homing to tumor sites and cancer metastasis. The new variants of CXCL12-CXCR4 present enhanced binding sensitivity and signaling responses essential for immunotherapy applications. The variant is used to engineer cytotoxic lymphocytes that

will show thereafter enhanced chemotaxis towards tumor sites and increased treatment efficacy.

Applications

- Cancer immunotherapy
- Treatment of cancer metastasis
- Cell chemotaxis