

Title (en)
SINGLE-CELL TRANSCRIPT SEQUENCING

Title (de)
EINZELZELLENTANSKRIFTSEQUENZIERUNG

Title (fr)
SÉQUENÇAGE DE PRODUITS DE TRANSCRIPTION UNICELLULAIRES

Publication
EP 3485043 A4 20200325 (EN)

Application
EP 17828411 A 20170712

Priority
• US 201662362425 P 20160714
• US 201762463487 P 20170224
• US 2017041770 W 20170712

Abstract (en)
[origin: WO2018013723A1] Described herein are methods for preparing DNA templates for single-cell transcript sequencing of RNA from a population of cells. The methods entail distributing cells from the population into separate reaction volumes so that a plurality of separate reaction volumes each contain a single, isolated cell, wherein the cells have been treated with a fixative prior to distribution. The isolated cells are then permeabilized or disrupted, and cDNA is prepared by reverse transcript, followed by amplification. Also provided is a novel chemistry for efficient production of DNA templates from T-cell receptors or immunoglobulins in single cells.

IPC 8 full level
C12Q 1/6806 (2018.01); **C12N 15/10** (2006.01)

CPC (source: EP)
C12N 15/1006 (2013.01); **C12N 15/1065** (2013.01); **C12N 15/1093** (2013.01); **C12Q 1/6806** (2013.01)

C-Set (source: EP)
1. **C12Q 1/6806** + **C12Q 2525/161** + **C12Q 2527/125** + **C12Q 2535/122** + **C12Q 2563/179**
2. **C12N 15/1065** + **C12Q 2525/161** + **C12Q 2527/125** + **C12Q 2535/122** + **C12Q 2563/179**
3. **C12N 15/1093** + **C12Q 2525/161** + **C12Q 2527/125** + **C12Q 2535/122** + **C12Q 2563/179**

Citation (search report)
• [I] US 2014308669 A1 20141016 - YANG XING [US], et al
• [I] US 2006040283 A1 20060223 - XIANG CHARLIE [US], et al
• [A] ANTOINE-EMMANUEL SALIBA ET AL: "Single-cell RNA-seq: advances and future challenges", NUCLEIC ACIDS RESEARCH, vol. 42, no. 14, 22 July 2014 (2014-07-22), pages 8845 - 8860, XP055544044, ISSN: 0305-1048, DOI: 10.1093/nar/gku555
• [T] MOUSTAFA ATTAR ET AL: "A practical solution for preserving single cells for RNA sequencing", SCIENTIFIC REPORTS, vol. 8, no. 1, 1 February 2018 (2018-02-01), pages 2151, XP055640844, DOI: 10.1038/s41598-018-20372-7

Citation (examination)
• DAVID SVEC ET AL: "Direct Cell Lysis for Single-Cell Gene Expression Profiling", FRONTIERS IN ONCOLOGY, vol. 3, 1 January 2013 (2013-01-01), XP055167177, DOI: 10.3389/fonc.2013.00274
• See also references of WO 2018013723A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2018013723 A1 20180118; WO 2018013723 A9 20190328; CA 3027423 A1 20180118; CN 109661474 A 20190419; EP 3485043 A1 20190522; EP 3485043 A4 20200325; SG 11201811048U A 20190130

DOCDB simple family (application)
US 2017041770 W 20170712; CA 3027423 A 20170712; CN 201780044623 A 20170712; EP 17828411 A 20170712; SG 11201811048U A 20170712