

Title (en)  
CHIMERIC ANTIGEN RECEPTORS WITH ENHANCED NFkB SIGNALING

Title (de)  
CHIMÄRE ANTIGENREZEPTOREN MIT VERBESSERTER NFkB-SIGNALGEBUNG

Title (fr)  
RÉCEPTEURS ANTIGÉNIQUES CHIMÉRIQUES À SIGNALISATION DE NFkB AMÉLIORÉE

Publication  
**EP 3684424 A1 20200729 (EN)**

Application  
**EP 18859613 A 20180911**

Priority

- US 201762561815 P 20170922
- US 201762597128 P 20171211
- US 201862640153 P 20180308
- US 201862666381 P 20180503
- US 201862666385 P 20180503
- US 2018050417 W 20180911

Abstract (en)  
[origin: WO2019060174A1] Disclosed herein are chimeric antigen receptor (CAR) polypeptides, which can be used with adoptive cell transfer to target and kill cancers, that comprise a co-stimulatory signaling region having a mutated form of a cytoplasmic domain of CD28 that enhances CAR-T cell function, a mutated form of a cytoplasmic domain of 41BB that enhances nuclear factor kappaB (NFkB) signaling, or a combination thereof. Also disclosed are immune effector cells, such as T cells or Natural Killer (NK) cells, that are engineered to express these CARs. Also disclosed are immune effector cells co-expressing a CAR and one or more TRAF proteins. Therefore, also disclosed are methods of providing an anti-tumor immunity in a subject with a tumor associated antigen-expressing cancer that involves adoptive transfer of the disclosed immune effector cells.

IPC 8 full level  
**A61K 48/00** (2006.01); **A61K 39/00** (2006.01); **C07H 21/04** (2006.01); **C07K 16/00** (2006.01); **C12N 5/071** (2010.01); **C12N 5/16** (2006.01); **C12N 15/00** (2006.01)

CPC (source: EP US)  
**A61K 39/4611** (2025.01 - EP US); **A61K 39/4631** (2025.01 - EP US); **A61K 39/464412** (2025.01 - EP US); **A61P 35/00** (2018.01 - EP); **C07K 14/7051** (2013.01 - EP); **C07K 14/70521** (2013.01 - EP US); **C07K 16/2803** (2013.01 - EP US); **C12N 5/0638** (2013.01 - EP US); **A61K 48/00** (2013.01 - EP); **A61K 2039/505** (2013.01 - EP); **A61K 2239/31** (2023.05 - EP US); **A61K 2239/38** (2023.05 - EP US); **A61K 2239/48** (2023.05 - EP US); **C07K 2317/622** (2013.01 - EP US); **C07K 2319/02** (2013.01 - EP US); **C07K 2319/03** (2013.01 - EP US); **C07K 2319/33** (2013.01 - EP US); **C07K 2319/70** (2013.01 - EP US); **C12N 2501/515** (2013.01 - EP US); **C12N 2510/00** (2013.01 - EP US); **C12N 2740/13043** (2013.01 - EP)

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2019060174 A1 20190328**; AU 2018335266 A1 20200206; CA 3070861 A1 20190328; EP 3684424 A1 20200729; EP 3684424 A4 20210929; JP 2021500859 A 20210114

DOCDB simple family (application)  
**US 2018050417 W 20180911**; AU 2018335266 A 20180911; CA 3070861 A 20180911; EP 18859613 A 20180911; JP 2020516722 A 20180911