Oncolytic adenovirus encoding for IL-15

Catalogue number:
Sub-type:
Images:

Contributor

Inventor:
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Images:

Tool details

*FOR RESEARCH USE ONLY

Name: Oncolytic adenovirus encoding for IL-15

Alternate name:

Class:
Conjugate:
Description: Oncolytic adenoviruses have become commonly used viral vectors for cancer immunotherapy worldwide. Modifications in the viral genome give the potential of such viruses to serve as gene transfer vehicles and target cancer cell sof malignant phenotype. Restricted curative effect with traditional cancer therapies (radiation therapy, conventional chemotherapy, etc.) is often due to the lack of tumour infiltrate immune cells. To target the absence of such effectors and facilitate their recognition of target cells, the molecular function of various signalling molecules can be investigated. Cytokines play a role in oncology since many decades by regulating the tumour-directed immune response. These molecular messengers hold the potential to switch a cold tumour containing only few immune effector cells to a hot tumour with increased tumour infiltration. The match between effector and target cells constitute a necessity for effective therapies. Therefore, cytokine encoding adenoviruses can be designed to facilitate immune infiltration based on their role, mainly, in T-cell attraction. CXCL9 belongs to the subgroup of cytokines known as chemokines. Interleukin 15 (IL-15) is a cytokine involved in regulating the immune system's response to inflammation and infection by aiding stimulation of T- and NK cell activation through the IL-15R receptor.
Purpose: Oncolytic viruses are able to stimulate the anti-tumour immunity when administered concomitantly with immunotherapies. This vector encoding for IL-15 can be used to study effects or mechanisms of such combinations, with applications in cancer vaccines.
Parental cell:
Organism:
Tissue:
Model:
Gender:

Isotype:
Reactivity:
Selectivity:
Host:
Immunogen:
Immunogen UNIPROT ID:
Sequence: Hamdan et al. 2021. Mol Ther Methods Clin Dev. 4;20:625-634. PMID: 33718515
Growth properties:
Production details:
Formulation:
Recommended controls:
Bacterial resistance:
Selectable markers: kanamycin selection LB medium
Additional notes:

Target details

Target:

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application: A549 cell infection and cytokine expression
Application notes:

Handling

Format:
Concentration:
Passage number:
Growth medium:
Temperature:
Atmosphere:
Volume:
Storage medium:
Storage buffer:
Storage conditions:

Shipping conditions:

Related tools

Related tools: Oncolytic adenovirus encoding for CXCL9, Oncolytic adenovirus encoding for CXCL10

References

References: