

Immorta-MAIT T cell clone EM-D5 Cell Line

Catalogue number: 159689

Sub-type:

Images:

Contributor

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Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Immorta-MAIT T cell clone EM-D5 Cell Line

Alternate name:

Class:

Conjugate:

Description: The Immorta-MAITs are human mucosal-associated invariant T (MAIT) cells. Mucosal-associated invariant T (MAIT) cells are innate-like T cells that are found in blood, liver, lungs, and mucosa and are known to play a role in defence against bacterial and viral infections. These cell lines are clonal and were generated by single cloning methods from healthy thymus tissue not tumour tissue. MAITs have also been shown to potentially play a role in autoimmune diseases such as multiple sclerosis, rheumatoid arthritis, and systemic lupus erythematosus. This cell line expresses the MAIT T cell receptor alpha (TRAV1-2). EM-B11 stains with an MR1-tetramer loaded with a MAIT antigen 5-OP-RU and not control MR1-tetramer loaded with 6FP. This clone expresses CD4, CD8, CD161, and CD27. EM-D5 is a MAIT T cell clone which expresses a T-cell receptor (TCR) described in the image above. There are 9 other Immorta-MAIT cell lines in this collection. Explore our 'Related Tools'.

Purpose:

Parental cell:

Organism: Human

Tissue:

Model: immortalised Line

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties: TRAV1-2 is expressed uniformly (determined by flow cytometry staining). This clone expresses CD4, CD8, CD161, and CD27 and can be classified as a double-positive thymocyte. This T cell clone binds the MR1/5-OP-RU tetramer but not MR1/6FP tetramer (negative control). Clone is MR1-restricted in its production of IFN-gamma by ELISPOT test, determined by its response to M. smegmatis-infected A549 cell line but not a M. smegmatis-infected MR1-- A549 cell line.

Production details: Generated by single cell isolation of MR1/5-OP-RU tetramer+ cells from a human thymus. Single cells were rapidly expanded into a T cell clone using antibody to CD3 (clone OKT3) and IL-2.

Formulation:**Recommended controls:****Bacterial resistance:****Selectable markers:****Additional notes:**

Target details

Target:**Target alternate names:****Target background:****Molecular weight:****Ic50:**

Applications

Application:**Application notes:**

Handling

Format: Frozen**Concentration:****Passage number:**

Growth medium: Upon receipt spin cells and resuspend them in 15ml of fresh media and add to T12.5 flask. Recommended media is RPMI supplemented with 10% FBS, L-Glut, gentamicin and 0.5ng/mL IL2. Incubate at 37 °C. Aspirate half the media and replace with fresh media every 3-4 weeks.

Temperature:**Atmosphere:****Volume:****Storage medium:****Storage buffer:**

Storage conditions:

Shipping conditions: Dry ice

Related tools

Related tools:

References

References:

CancerTools.org