

CD4 eFISH Probe

Catalog No	Description
FR042-20	0.22 mL of ready-to-use oligo-conjugated mRNA probe*
CP203-20	0.22 mL of complementary probe conjugated with HEX fluorophore*

* For 18x18 slides, addition of 10 µL probe is recommended.

Intended Use

For Research Use only. This eFISH mRNA probe is designed for the specific localization of cluster of differentiation 4 (CD4) mRNA in formalin-fixed, paraffin embedded (FFPE) tissue sections. Interpretation of results must be done by experienced personnel.

Summary and Explanation

CD4 is a glycoprotein present on the membrane of T lymphocytes. Naïve CD4⁺T cells, along with T-cell receptor, acts as a co-receptor to recognize antigens presented by antigen-presenting cells (MHC class II) and gets activated. Once activated, they differentiate into distinct effector subtypes and carry out multiple functions ranging from the activation of cells of innate immune system to suppression of immune reaction. Studies have shown that CD4⁺T cells are involved in anti-tumor immunity. Most cancer cells do not express MHC class II molecules and thus cannot be recognized by CD4⁺T cells. However, cross-presentation of tumor antigens by stromal cells enables detection of cancer cells by CD4⁺T cells. In addition, it was also shown that serum CD4 is associated with the infiltration of CD4⁺T cells into the tumor microenvironment and induce senescence of tumor cells, destroy tumor vasculature, and help CD8⁺T cells. Such roles of CD4⁺T cells in tumor immunity suggest their potential for application in immunotherapy.

Storage and Handling

Store at -20 °C. Allow the reagents to reach ambient temperature before use.

Reagents Provided

One vial of eFISH probe and one vial of corresponding fluorophore-labeled complementary probe.

Recommended Protocol

Manual:

<https://omicsveu.com/wpcontent/uploads/Brochures/914-0083.0.pdf>

Automation:






<https://omicsveu.com/wpcontent/uploads/Brochures/914-0082.0.pdf>

For more information:

<https://omicsveu.com/wpcontent/uploads/Brochures/914-0084.0.pdf>

Bibliography

- [10.1007/978-3-642-16712-6_518](https://doi.org/10.1007/978-3-642-16712-6_518)
- [10.1155/2012/925135](https://doi.org/10.1155/2012/925135)
- [10.1155/2021/6539702](https://doi.org/10.1155/2021/6539702)
- [10.1016/j.coi.2021.09.005](https://doi.org/10.1016/j.coi.2021.09.005)

	Temperature Limitation	RUO	For Research Use Only
	Use By Date	LOT	Batch Code
	Non-Sterile		Consult Instructions for Use
REF	Catalogue Number		BioGenex

Distributed by: omicsveu

Omicsveu is a distributor company offering the true spatial multi-omics platform & reagents.

Address: 48810 Kato Road, Suite 100E & 200E
Fremont, CA 94538, USA
Tel: +1 (800) 421-4149

Contact: customerservice@omicsveu.com

Category	eFISH Probes	Revision No.	A
Document No.	932-FR042-20	Release Date	