# Anti-FOXP3 / DIA-FX3
# Mouse monoclonal marker Treg cells (Regulatory T cells), Clone FX3

## Product Information

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| **Catalog No.:** | **DIA-FX3** (100µl) |
| **Clone:** | FX3 |
| **Isotype:** | Mouse IgG2a/k |
| **Specificity:** | FOXP3 |
| **Immunogen:** | Recombinant peptide |
| **Physical State:** | Lyophilized powder |
| **Species Reactivity:** | Human |
| **Positive Control:** | Tonsil |
| **Visualization:** | Nuclear |

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| **Reconstitution:** | DIA-FX3, restore to 100 µl<br>Reconstitute with sterile distilled water by gentle shaking for 10 minutes |
| **Presentation:** | In PBS with 2% BSA, 0.05% NaN3, pH 7.4. Antibody purified from culture supernatant |
| **Applications:** | Immunohistochemistry (IHC), standard formalin-fixed paraffin sec |
| **Dilutions:** | 1:100 - 1:200 IHC-P<br>(General recommendation, validation of antibody performance/protocol is the responsibility of the end user. Positive/negative controls should be run simultaneously with patient specimen. Interpretation must be made by a qualified pathologist within the context of patient's clinical history/other diagnostic tests.) |
| **Associated Antibody** | anti-CD112R, clone R12, DIA-R12<br>anti-CD8, clone TC8, DIA-TC8 |

## Reactivity

Clone FX3 has been developed and for detection of FOXP3 in routine formalin-fixed paraffin-embedded tissue specimen (IHC FFPE) and validated for fluorescence multiplex IHC studies of FOXP3 expression in human tissues.

FOXP3 (Forkhead box protein P3) is mainly expressed in Regulatory T (Treg) cells, a subset of CD4+ T-cells, that play a suppressive role in the immune system. Treg cells ensure immune homeostasis through their ability to suppress the activation and function of leukocytes. FOXP3 has emerged as a prominent target for the development of new immunotherapies for cancer and autoimmune diseases.

The transcription factor FOXP3 is important for the development and inhibitory function of regulatory T-cells (Treg) and acts either as a transcriptional repressor or as a transcriptional activator depending on its interactions with other transcription factors, histone acetylases and deacetylases. FOXP3 coordinates the suppressive activity of Treg cells by activation of different genes, including CTLA4 and TNFRSF18, paralleled by repression of genes encoding cytokines such as interleukin-2 (IL2) and interferon-gamma (IFNG).

## Instructions for Use

### Immunohistochemical staining of standard formalin-fixed paraffin sections

Deparaffinize and rehydrate according to standard procedures. Heat induced epitope retrieval (HIER) is required. Pretreatment in an autoclave at 121°C (5min) is recommended (Tris-EDTA-citrate, pH 7.8, e.g. TEC-buffer). Incubate primary antibody for 60 min at 37°C. Antibody can be used with biotin/(strept)avidin-based detection techniques (e.g. Vectastain® Elite® ABC-HRP-kit/AEC). For a polymer-based detection technique (e.g. Dako EnVision™ detection system, Peroxidase/DAB) use the antibody at 1:100-200 dilution. The antibody is suited for immuno-histochemical staining using automated platforms.

## Storage and Stability

Store the lyophilized antibody at 2-8°C. For long term storage freeze at -20°C, thus the antibody is stable for at least one year. As reconstituted liquid store at 2-8°C short term (several weeks). Avoid repeated freeze / thaw cycles.

## Safety Notes

The material contains 0.05% sodium azide as preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material. Avoid skin and eye contact, inhalation and ingestion.

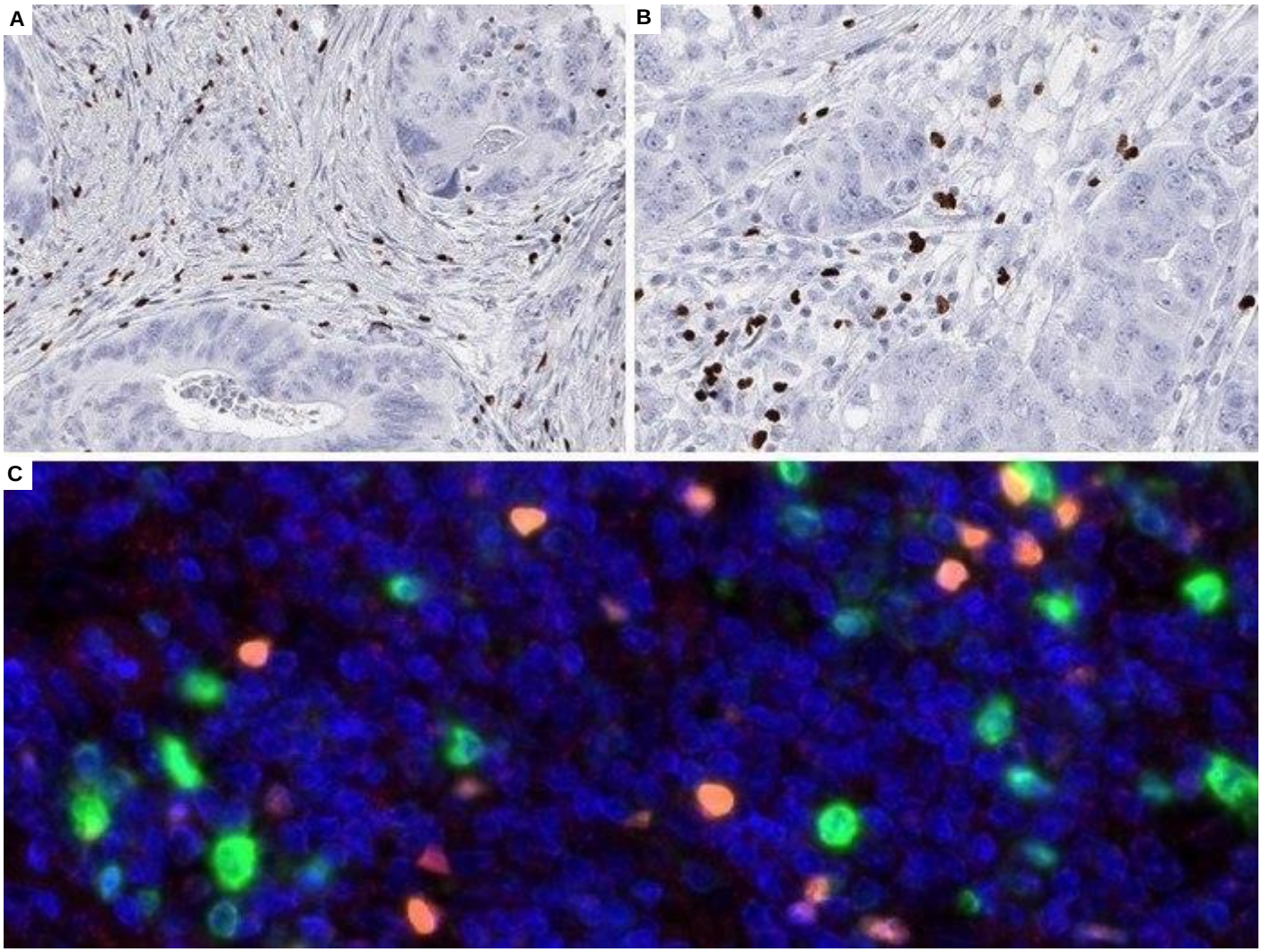
ONCOdianova GmbH
Warburgstrasse 45
D-20354 Hamburg
Germany

URL: www.oncodianova.com
Email: info@oncodianova.com
Phone: +49 (0)40 - 45067 - 0
Fax +49 (0)40 - 45067 - 490

## Figures

### Immunohistochemistry of human FOXP3 in routine formalin-fixed paraffin-embedded tissue samples

**A:** FOXP3 positive regulatory T-cells in the Stroma of a colorectal adenocarcinoma.
**B:** FOXP3 positive TILs in a high grade serous ovarian carcinoma.
**C:** Multiplex immunofluorescence of FOXP3 (DIA-FX3, red) and CD112R (DIA-R12, green), normal tonsil, magnification 40x




(pictures courtesy of Prof. Guido Sauter, Department of Pathology, University Hospital Eppendorf, Hamburg, Germany)

## General references

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ONCOdianova GmbH
Warburgstrasse 45
D-20354 Hamburg
Germany

URL: www.oncodianova.com
Email: info@oncodianova.com
Phone: +49 (0)40 - 45067 - 0
Fax +49 (0)40 - 45067 - 490