GENE BIO SOLUTION

# FOXP3(86D)

| Format | Catalog No. | Pack size | Dilution |
|---|---|---|---|
| Concentrated | GB3197A,C | 0.1, 1,0 mL | 1:100 |
| Prediluted | GB3197AA | 6.0 mL | Ready to use |

## PRODUCT DESCRIPTION -

FOXP3 [86D] is a mouse monoclonal antibody designed for laboratory applications to qualitatively identify FOXP3 protein using immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical assessment of any staining or its absence must be supplemented by morphological analyses with appropriate controls and should be considered in conjunction with the patient's clinical history and other diagnostic evaluations by a certified pathologist.

FOXP3 is a member of the forkhead transcription factor family that plays a role in the regulation, activation, and differentiation of T-cells. FOXP3 is established as a master regulatory gene for the generation and activity of CD4+/CD25+ regulatory T-cells. In immunohistochemistry, FOXP3 has been identified as a particular marker for adult T-cell leukemia/lymphoma. Elevated levels of circulating regulatory T cells have been linked to disease development in melanoma, as well as breast and lung malignancies. In contrast, the presence of FOXP3+ regulatory T cells in invasive tumors has been linked to survival across several malignancies. In colon malignancies, a high prevalence of FOXP3+ infiltrates has been demonstrated to be a favorable prognostic indication. Individuals with elevated FOXP3 expression in Crohn's disease demonstrate an improved response to infliximab treatment. In allograft recipients, FOXP3 cell numbers may be beneficial for enhancing post-transplant care.

## INTENDED USE -

Intended for In Vitro Diagnostic Applications FOXP3 [86D] is a mouse monoclonal antibody designed for laboratory applications to qualitatively identify FOXP3 protein using immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence must be supplemented by morphological studies utilizing appropriate controls and assessed in conjunction with the patient's clinical history and other diagnostic tests by a skilled pathologist.

## SUMMARY AND EXPLANATION -

FOXP3 is a member of the forkhead transcription factor family that plays a role in T cell regulation, activation, and differentiation. FOXP3 is established as a principal regulatory gene for the generation and functionality of CD4+/CD25+ regulatory T-cells. In immunohistochemistry, FOXP3 has been identified as a particular marker for adult T-cell leukemia/lymphoma. In melanoma, as well as breast and lung malignancies, elevated levels of circulating regulatory T cells have been linked to disease progression . In contrast, the presence of FOXP3+ regulatory T cells within invasive tumors has been linked to survival across several malignancies . In colon malignancies, a high prevalence of FOXP3+ infiltrates has been demonstrated to be a favorable prognostic indication. Patients exhibiting elevated FOXP3 expression in Crohn's disease demonstrate an improved response to infliximab therapy . In allograft recipients, FOXP3 cell numbers may be beneficial for enhancing post-transplant care. .

PRINCIPLE OF PROCEDURE -

Antigen detection in tissues and cells is a multi-step immunohistochemistry procedure. The initial step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, a secondary antibody is introduced to attach to the primary antibody. An enzyme label is subsequently introduced to bind to the secondary antibody; the detection of the bound antibody is shown by a colorimetric reaction.

SOURCE -Mouse monoclonal

SPECIES REACTIVITY - Human; others not tested

CLONE - 86D

ISOTYPE - IgG1

PROTEIN CONCENTRATION - ~10 mg/ml. Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - FOXP3 fusion protein

CELLULAR LOCALISATION - Nuclear

POSITIVE TISSUE CONTROL - Colon cancer and tonsil

KNOWN APPLICATIONS-Immunohistochemistry
30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

SUPPLIED AS - Buffer with protein carrier and preservative

STORAGE AND STABILITY -

Store at 2ºC to 8ºC. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2ºC to 8ºC

Materials required but not provided -

1) Positivetissuecontrol-Coloncancerandtonsil
2) Negativecontroltissue(internalorexternal)
3) Microscopeslidesandcoverslips
4) Stainingjarsorbaths
5) Timer
6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
10) Detection system
11) Chromogen
12) Wash buffer
13) Hematoxylin
14) Antibody diluents
15) Peroxide block
16) Light microscope
17) Mounting medium

LIMITATIONS-

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.