

TECHNICAL DATA SHEET

PE Anti-Human FoxP3 Transcription Factor Staining

Catalog Number: 50-4770-KIT

PRODUCT INFORMATION

Kit Components PE Anti-Human Foxp3 with Isotype Control (TBhP3, TBhISO) Cat.No. 50-4773-T025
Size 25 tests (Page 2)

Foxp3 / Transcription Factor Staining Buffer Kit Cat.No. TNB-0607-KIT (Page 5)

Description

The TBhP3 antibody reacts with human Foxp3, a 50-55 kDa transcription factor which is a central regulator of T cell activity and is critical for the development and function of regulatory T cells (Tregs). Foxp3, also known as Scurfin, JM2, or IPEX, is a member of the forkhead/winged-helix family of transcriptional regulators and is a marker of both natural and induced Tregs. Mutations in FoxP3 are associated with the X-linked IPEX syndrome in humans and with the X-linked mutation in mice that is responsible for 'Scurfy'.

Intracellular staining of human peripheral blood mononuclear cells (PBMCs) with TBhP3 antibody using the Foxp3/Transcription Factor Staining Buffer Kit reveals approximately 0.5-4% of lymphocytes staining, with the majority found in the CD25-bright population. There is significant variation between donors.

Tonbo Biosciences tests all antibodies by flow cytometry. Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

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TECHNICAL DATA SHEET

PE Anti-Human Foxp3 with Isotype Control (TBhP3,

Catalog Number: 50-4773

PRODUCT INFORMATION

Kit Components PE Anti-Human Foxp3 (TBhP3) Cat.No. 50-4776-T025 Size 25 tests (Page 2)
 PE Rabbit IgG Isotype Control (TBhISO) Cat.No. 50-4775-T025 Size 25 tests (Page 3)

Description

The TBhP3 antibody reacts with human Foxp3, a 50-55 kDa transcription factor which is a central regulator of T cell activity and is critical for the development and function of regulatory T cells (Tregs). Foxp3, also known as Scurfin, JM2, or IPEX, is a member of the forkhead/winged-helix family of transcriptional regulators and is a marker of both natural and induced Tregs. Mutations in FoxP3 are associated with the X-linked IPEX syndrome in humans and with the X-linked mutation in mice that is responsible for 'Scurfy'.

Intracellular staining of human peripheral blood mononuclear cells (PBMCs) with TBhP3 antibody using the Foxp3/Transcription Factor Staining Buffer Kit reveals approximately 0.5-4% of lymphocytes staining, with the majority found in the CD25-bright population. There is significant variation between donors.

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TECHNICAL DATA SHEET

PE Anti-Human Foxp3 (TBhP3)

Catalog Number: 50-4776

PRODUCT INFORMATION

Contents: PE Anti-Human Foxp3 (TBhP3)

Isotype: Rabbit IgG

Concentration: 5µl (0.05µg)/test

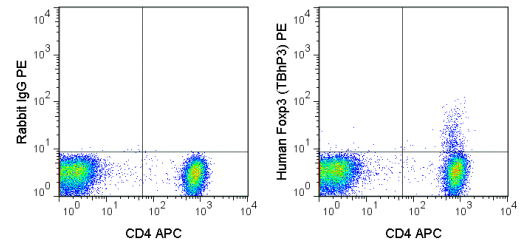
Clone: TBhP3

Reactivity: Human

Use By: 12 months from date of receipt

Storage Conditions: 2-8°C protected from light

Formulation: 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% NaN₃, 0.1% gelatin, pH7.2



Human peripheral blood lymphocytes were stained with APC Anti-Human CD4 (20-0047), followed by intracellular staining with 0.05 ug PE Anti-Human Foxp3 (50-4776) (right panel) or 0.05 ug PE Rabbit IgG isotype control (left panel).

DESCRIPTION

The TBhP3 antibody reacts with human Foxp3, a 50-55 kDa transcription factor which is a central regulator of T cell activity and is critical for the development and function of regulatory T cells (Tregs). Foxp3, also known as Scurfin, JM2, or IPEX, is a member of the forkhead/winged-helix family of transcriptional regulators and is a marker of both natural and induced Tregs. Mutations in FoxP3 are associated with the X-linked IPEX syndrome in humans and with the X-linked mutation in mice that is responsible for 'Scurfy'.

Intracellular staining of human peripheral blood mononuclear cells (PBMCs) with TBhP3 antibody using the Foxp3/Transcription Factor Staining Buffer Kit reveals approximately 0.5-4% of lymphocytes staining, with the majority found in the CD25-bright population. There is significant variation between donors.

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been pre-titrated and quality-tested for flow cytometry using an appropriate cell type. The antibody has been diluted for use at 5 µl per test, defined as the amount of antibody that will stain a cell sample in a final volume of approximately 100 µL. The number of cells within a sample should be determined empirically, but typically ranges between 1x10⁵ to 1x10⁸ cells.

REFERENCES

Brunkow ME, Jeffery EW, Hjerrild KA, Paepfer B, Clark LB, Yasayko SA, Wilkinson JE, Galas D, Ziegler SF, Ramsdell F. 2001. Nat Genet. 27(1):68-73.
 Bennett CL, Christie J, Ramsdell F, Brunkow ME, Ferguson PJ, Whitesell L, Kelly TE, Saulsbury FT, Chance PF, and Ochs HD. 2001. Nat Genet. 27, 20–21.
 Kaspirowicz DJ, Smallwood PS, Tyznik AJ, and Ziegler SF. 2003. J Immunol. 171 (3) 1216-1223.
 Zou. 2006. Nat Rev Immunol. 6:295–307.

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TECHNICAL DATA SHEET

PE Rabbit IgG Isotype Control (TBhISO)

Catalog Number: 50-4775

PRODUCT INFORMATION

Contents: PE Rabbit IgG Isotype Control (TBhISO)

Isotype: Rabbit IgG

Concentration: 5 μ l (0.05 μ g)/test

Clone: TBhISO

Reactivity: N/A

Use By: 12 months from date of receipt

Storage Conditions: 2-8°C protected from light

Formulation: 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% NaN₃, 0.1% gelatin, pH7.2

DESCRIPTION

The TBhISO immunoglobulin is useful as an isotype-matched control. It is used as an isotype control for rabbit IgG antibodies.

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been pre-titrated and quality-tested for flow cytometry using an appropriate cell type. The antibody has been diluted for use at 5 μ L per test, defined as the amount of antibody that will stain a cell sample in a final volume of approximately 100 μ L. The number of cells within a sample should be determined empirically, but typically ranges between 1x10⁵ to 1x10⁸ cells.

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TECHNICAL DATA SHEET

Transcription Factor Staining Buffer Kit

Catalog Number: TNB-0607-KIT

PRODUCT INFORMATION

Contents: Transcription Factor Fix/Perm Concentrate (4X) TNB-1020-L050 (see page 2)
Transcription Factor Fix/Perm Diluent (1X) TNB-1022-L160 (see page 3)
Flow Cytometry Perm Buffer (10X) TNB-1213-L150 (see page 4)

DESCRIPTION

Tonbo Biosciences Transcription Factor Staining Buffer Kit contains specially formulated buffers and solutions for optimal resolution and low background in your analysis of nuclear antigens by flow cytometry. This complete kit contains the following components for use in staining protocols for detection of nuclear antigens such as Foxp3 and ROR gamma.

Transcription Factor Fix/Perm Concentrate (4X) (Cat. No. TNB-1020-L050): 50 mL. A concentrated solution which, when diluted with Transcription Factor Fix/Perm Diluent (1X) (cat. no. TNB-1022-L160), provides best results in protocols for intranuclear staining of transcription factors using fluorescently conjugated antibodies.

Transcription Factor Fix/Perm Diluent (1X) (Cat. No. TNB-1022-L160): 160 mL. Intended for use as a diluent for Transcription Factor Fix/Perm Concentrate (4X)

Flow Cytometry Perm Buffer (10X) (Cat. No. TNB-1213-L150): 150 mL. Provided as a concentrate which, when diluted with distilled water to a 1X solution, provides best results in intracellular staining protocols for cytokines and other cytoplasmic antigens, by maintaining membrane permeabilization throughout staining and wash steps.

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TECHNICAL DATA SHEET

Transcription Factor Fix/Perm Concentrate (4X)

Catalog Number: TNB-1020-L050

PRODUCT INFORMATION

Contents: Transcription Factor Fix/Perm Concentrate (4X)

Use By: 6 months from date of receipt

Storage Conditions: 2-8°C

Formulation: Transcription Factor Fix/Perm Concentrate (4x) contains formaldehyde. Use appropriate personal protective equipment in order to avoid contact with skin and eyes.

DESCRIPTION

Tonbo Biosciences Transcription Factor Fix/Perm Concentrate (4X) is a concentrated solution which, when diluted with Transcription Factor Fix/Perm Diluent (1X) (cat. no. TNB-1022-L160), provides best results in protocols for intranuclear staining of transcription factors using fluorescently conjugated antibodies, followed by flow cytometric analysis. These reagents are formulated for optimal resolution and low background in your analysis of key nuclear proteins such as Foxp3.

PREPARATION

Transcription Factor Fix/Perm Concentrate is supplied as a 4X stock solution and must be diluted with Transcription Factor Fix/Perm Diluent (1X) (TNB-1022-L160) prior to use. To prepare a 1X working solution, mix 1 part Transcription Factor Fix/Perm Concentrate (4X) with 3 parts Transcription Factor Fix/Perm Diluent (1X).

APPLICATION NOTES

After cell surface staining is complete and cells are washed, completely resuspend the cell pellet by briefly vortexing. Add 1 mL of the 1X working solution to the cells, vortex briefly, and incubate for 30-60 minutes at room temperature or 4°C. Samples should be protected from light. Following the incubation period, wash cells 2 times with 1X Flow Cytometry Perm Buffer (TNB-1213-L150) prior to incubation with conjugated antibodies specific for intracellular proteins.

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TECHNICAL DATA SHEET

Transcription Factor Fix/Perm Diluent (1X)

Catalog Number: TNB-1022-L160

PRODUCT INFORMATION

Contents: Transcription Factor Fix/Perm Diluent (1X)

Use By: 6 months from date of receipt

Storage Conditions: 2-8°C

Formulation: Transcription Factor Fix/Perm Diluent (1x) contains sodium azide. Use appropriate personal protective equipment in order to avoid contact with skin and eyes.

DESCRIPTION

Tonbo Biosciences Transcription Factor Fix/Perm Diluent (1X), is intended for use with Transcription Factor Fix/Perm Concentrate (4X) (cat. no. TNB-1020-L050), for best results in protocols for intranuclear staining of transcription factors using fluorescently conjugated antibodies, followed by flow cytometric analysis. These reagents are formulated for optimal resolution and low background in your analysis of key nuclear proteins such as Foxp3.

PREPARATION

Transcription Factor Fix/Perm Diluent is supplied as a 1X solution and must be used to dilute Transcription Factor Fix/Perm Concentrate (4X)(TNB-1020-L050) prior to use. To prepare a 1X working solution, mix 3 parts Transcription Factor Fix/Perm Diluent (1X) with 1 part Transcription Factor Fix/Perm Concentrate (4X).

APPLICATION NOTES

After cell surface staining is complete and cells are washed, completely resuspend the cell pellet by briefly vortexing. Add 1 mL of the 1X working solution to the cells, vortex briefly, and incubate for 30-60 minutes at room temperature or 4°C. Samples should be protected from light. Following the incubation period, wash cells 2 times with 1X Flow Cytometry Perm Buffer (TNB-1213-L150) prior to incubation with conjugated antibodies specific for intracellular proteins.

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TECHNICAL DATA SHEET

Flow Cytometry Perm Buffer (10X)

Catalog Number: TNB-1213-L150

PRODUCT INFORMATION

Contents: Flow Cytometry Perm Buffer (10X)

Use By: 6 months from date of receipt

Storage Conditions: 2-8°C

Formulation: Flow Cytometry Perm Buffer (10X) contains sodium azide. Use appropriate personal protective equipment in order to avoid contact with skin and eyes.

DESCRIPTION

Tonbo Biosciences Flow Cytometry Perm Buffer (10X) is provided as a concentrate which, when diluted with distilled water to a 1X solution, provides best results in intracellular staining protocols for cytokines and other cytoplasmic antigens, by maintaining membrane permeabilization throughout staining and wash steps. The Flow Cytometry Perm Buffer is formulated for optimal resolution and low background when used in fluorophore-labeled antibody staining protocols, followed by flow cytometric analysis.

PREPARATION

Flow Cytometry Perm Buffer is supplied as a 10X stock solution and must be diluted to a 1X solution with distilled water prior to use.

APPLICATION NOTES

Flow Cytometry Perm Buffer is intended for use as a wash and incubation buffer for intracellular staining protocols. The 1X working solution should be used for all washing and staining steps subsequent to cell surface staining and fixation.

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