

TFE3 Recombinant Rabbit Monoclonal Antibody Product Datasheet

Catalog# BX50203

Clone# BP6180

Predicted Molecular Wt: 62kDa
Species Cross-reactivity: Human
Applications: IHC-P

Purity: ProA affinity purified IgG
Form: Liquid
Swissprot ID: P19532

Background:

Transcription factor that acts as a master regulator of lysosomal biogenesis and immune response. Specifically recognizes and binds E-box sequences; efficient DNA-binding requires dimerization with itself or with another MIT/TFE family member such as TFEB or MITF. Involved in the cellular response to amino acid availability by acting downstream of MTOR: in the presence of nutrients, TFE3 phosphorylation by MTOR promotes its cytosolic retention and subsequent inactivation. Upon starvation or lysosomal stress, inhibition of MTOR induces TFE3 dephosphorylation, resulting in nuclear localization and transcription factor activity. In association with TFEB, activates the expression of CD40L in T-cells, thereby playing a role in T-cell-dependent antibody responses in activated CD4+ T-cells and thymus-dependent humoral immunity. Specifically recognizes the MUE3 box, a subset of E-boxes, present in the immunoglobulin enhancer. It also binds very well to a USF/MLTF site. Acts as a positive regulator of browning of adipose tissue by promoting expression of target genes; mTOR-dependent phosphorylation promotes cytoplasmic retention of TFE3 and inhibits browning of adipose tissue. Maintains the pluripotent state of embryonic stem cells by promoting the expression of genes such as ESRRB; mTOR-dependent nuclear exclusion promotes exit from pluripotency. Required to maintain the naive pluripotent state of hematopoietic stem cell; mTOR-dependent cytoplasmic retention of TFE3 promotes the exit of hematopoietic stem cell from pluripotency.

Subcellular location:

Nucleus

Recommended method:

Heat induced epitope retrieval with Tris-EDTA buffer (pH 9.0), primary antibody incubate at RT (18°C-25°C) for 30 minutes.

Immunogen:

Synthetic peptide was used as an immunogen.

Storage Buffer:

PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%.

Storage conditions:

-20°C

Storage instructions:

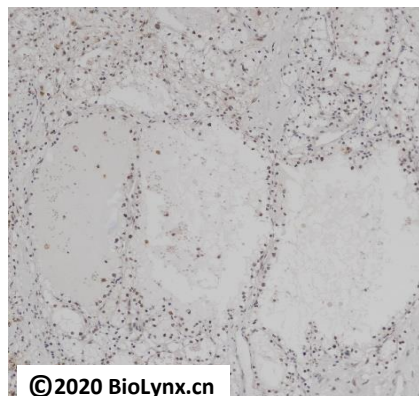
Shipped on blue ice. Upon delivery, aliquot, and store at -20°C. Avoid freeze / thaw cycles.

Recommended Dilutions:


IHC-P: 1:100-1:200

Background References:

1. Miller, A.J. et al. (2005) J Biol Chem 280, 146-55
2. Kauffman, E.C. et al. (2014) Nat Rev Urol 11, 465-75.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Renal cell carcinoma labelling TFE3 with BP6180. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0.

Product QC'd by: 

For research use only. Not for use in diagnostic or therapeutic applications.