

TFEB Polyclonal Antibody

Cat #: ABP56578

Size: 30µl /100µl /200µl

Product Information

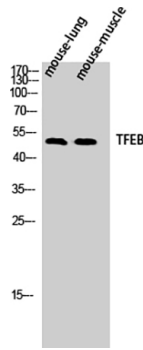
	Product Name: TFEB Polyclonal Antibody		
	Applications: WB, IHC-P, ELISA		Isotype: Rabbit IgG
	Reactivity: Human, Mouse		
REF	Catalog Number: ABP56578	LOT	Lot Number: Refer to product label
	Formulation: Liquid		Concentration: 1 mg/ml
	Storage: Store at -20°C. Avoid repeated freeze / thaw cycles.		Note: Contain sodium azide.

Background: Transcription factor EB (TFEB) is a member of the Myc-related, bHLH leucine-zipper family of transcription factors that drives the expression of a network of genes known as the Coordinated Lysosomal Expression and Regulation (CLEAR) network. TFEB specifically recognizes and binds regulatory sequences within the CLEAR box (GTCACGTGAC) of lysosomal and autophagy genes, resulting in the up-regulated expression of genes involved in lysosome biogenesis and function, and regulation of autophagy. TFEB is activated in response to nutrient deprivation, stimulating translocation to the nucleus where it forms homo- or heterooligomers with other members of the microphthalmia transcription factor (MITF) subfamily and resulting in up-regulation of autophagosomes and lysosomes. Recently, it has been shown that TFEB is a component of mammalian target of rapamycin (mTOR) complex 1 (mTORC1), which regulates the phosphorylation and nuclear translocation of TFEB in response to cellular starvation and stress. During normal growth conditions, TFEB is phosphorylated at Ser211 in an mTORC1-dependent manner. Phosphorylation promotes association of TFEB with 14-3-3 family proteins and retention in the cytosol. Inhibition of mTORC1 results in a loss of TFEB phosphorylation, dissociation of the TFEB/14-3-3 complex, and rapid transport of TFEB to the nucleus where it increases transcription of CLEAR and autophagy genes. TFEB has also been shown to be activated in a nutrient-dependent manner by p42 MAP kinase (Erk2). TFEB is phosphorylated at Ser142 by Erk2 in response to nutrient deprivation, resulting in nuclear localization and activation, and indicating that pathways other than mTOR contribute to nutrient sensing via TFEB.

Application Notes: Optimal working dilutions should be determined experimentally by the investigator. Suggested starting dilutions are as follows: WB (1:500-1:2000), IHC-P (1:100-1:300), ELISA (1:20000). Not yet tested in other applications.

Storage Buffer: PBS containing 50% Glycerol, 0.5% BSA and 0.02% Sodium Azide.

Storage Instructions: Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing.

	Fig.1. Western Blot analysis of Mouse-lung Mouse-muscle cells using TFEB Polyclonal Antibody diluted at 1:500.
	Fig.2. Western blot analysis of Mouse-kidney lysis using TFEB antibody. Antibody was diluted at 1:500.

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