

# Anti-Transcription Factor EB Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

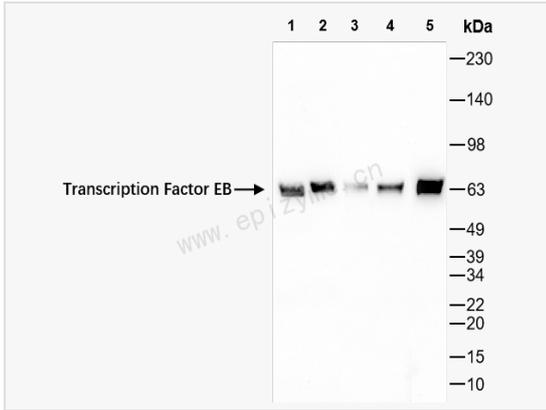
Catalog # R012145

## Product Information

Application	WB, IHC-P/IF (Tissue-P), IF(Cell)/ICC, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:50~1:100
Host	Rabbit
Clonality	Monoclonal
Clone No.	12M40K79
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human TFEB
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Transcription Factor EB Rabbit mAb [12M40K79] is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

Synonyms	BHLHE35; TFEB; Transcription factor EB; Class E basic helix-loop-helix protein 35; bHLHe35.
Calculated MW	Calculated MW: 53 kDa; Observed MW: 60 kDa
Uniprot ID	P19484
Gene ID	7942
Background	Transcription factor that acts as a master regulator of lysosomal biogenesis, autophagy, lysosomal exocytosis, lipid catabolism, energy metabolism and immune response (PubMed:21617040, PubMed:22576015, PubMed:22343943, PubMed:22692423, PubMed:30120233, PubMed:31672913)
Cellular Location	Nucleus.Cytoplasm.Cytosol.Lysosome membrane.Mainly present in the cytoplasm (PubMed:23434374, PubMed:33691586, PubMed:35662396). When nutrients are present, recruited to the lysosomal membrane via association with GDP-bound RagC/RRAGC (or RagD/RRAGD): it is then phosphorylated by MTOR (PubMed:23401004, PubMed:32612235, PubMed:36697823). Phosphorylation by MTOR prevents nuclear translocation and activity by promoting interaction with 14-3-3 proteins, such as YWHAZ (PubMed:22343943, PubMed:22692423, PubMed:23401004, PubMed:25720963, PubMed:32612235, PubMed:32753672, PubMed:35662396, PubMed:36697823, PubMed:37079666). Under aberrant lysosomal storage conditions, it translocates from the cytoplasm to the nucleus (PubMed:21617040, PubMed:22576015, PubMed:23434374, PubMed:25720963, PubMed:32753672). The translocation to the nucleus is regulated by ATP13A2 (PubMed:23434374, PubMed:27278822). Conversely, inhibition of mTORC1, starvation and lysosomal disruption, promotes denphosphorylation and translocation to the nucleus (PubMed:22343943, PubMed:22692423, PubMed:37079666). Exported from



Western Blot - Anti-Transcription Factor EB Rabbit mAb [12M40K79]

All lanes: R012145 at 1:1,000 dilution

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates

Lane 3: SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysates

Lane 4: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates

Lane 5: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates

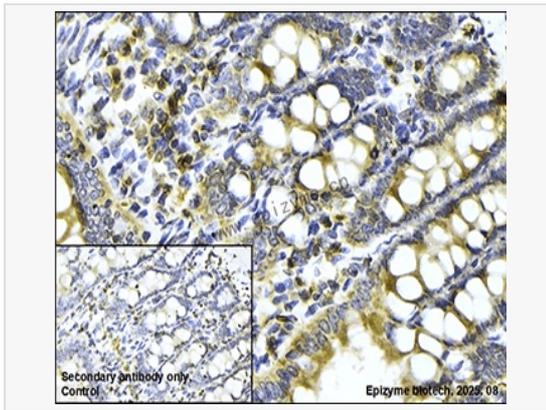
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 53 kDa

Observed band size: 60 kDa

Developed using the ECL technique (Cat. No. SQ201).



Immunohistochemistry - Anti-Transcription Factor EB Rabbit mAb [12M40K79]

Sample: Paraformaldehyde-fixed, paraffin embedded rat colon tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R012145 at 1:200 dilution

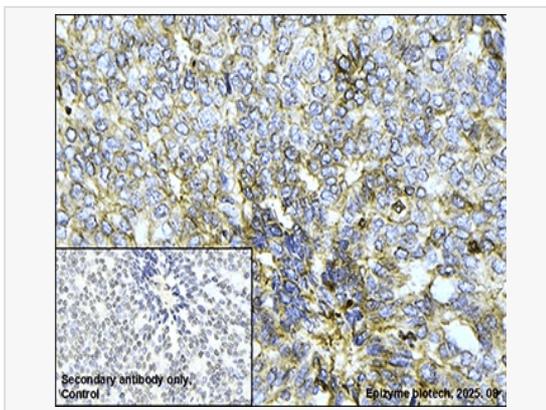
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Transcription Factor EB Rabbit mAb [12M40K79]

Sample: Paraformaldehyde-fixed, paraffin embedded human breast cancer tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R012145 at 1:200 dilution

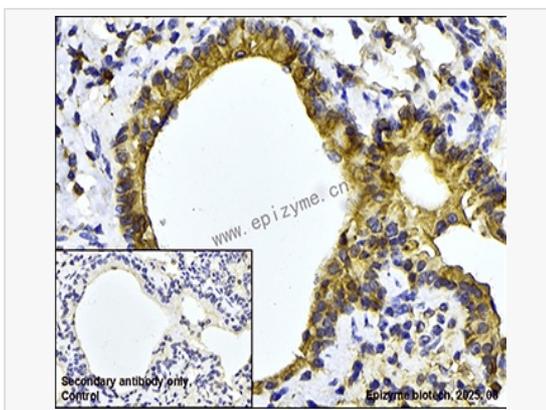
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-Transcription Factor EB Rabbit mAb [12M40K79]

Sample: Paraformaldehyde-fixed, paraffin embedded mouse lung tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R012145 at 1:200 dilution

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.