

Anti-Band 3 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

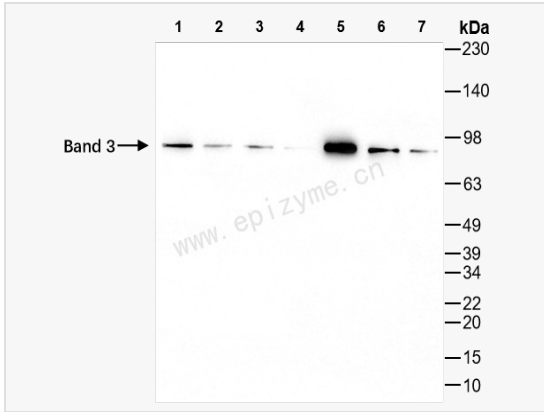
Catalog # R011951

Product Information

Application	WB, IHC-P/IF (Tissue-P), ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:3,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	48L80L56
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Band 3
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-Band 3 Rabbit mAb [48L80L56] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	CD233; AE1; DI; EPB3; SLC4A1; Band 3 anion transport protein; Anion exchange protein 1; Solute carrier family 4 member 1; AE 1; Anion exchanger 1.
Calculated MW	Calculated MW: 102 kDa; Observed MW: 95-100 kDa
Uniprot ID	P02730
Gene ID	6521
Background	The protein encoded by this gene is part of the anion exchanger (AE) family and is expressed in the erythrocyte plasma membrane, where it functions as a chloride/bicarbonate exchanger involved in carbon dioxide transport from tissues to lungs. The protein comprises two domains that are structurally and functionally distinct. The N-terminal 40kDa domain is located in the cytoplasm and acts as an attachment site for the red cell skeleton by binding ankyrin. The glycosylated C-terminal membrane-associated domain contains 12-14 membrane spanning segments and carries out the stilbene disulphonate-sensitive exchange transport of anions. The cytoplasmic tail at the extreme C-terminus of the membrane domain binds carbonic anhydrase II. The encoded protein associates with the red cell membrane protein glycophorin A and this association promotes the correct folding and translocation of the exchanger. This protein is predominantly dimeric but forms tetramers in the presence of ankyrin. Many mutations in this gene are known in man, and these mutations can lead to two types of disease: destabilization of red cell membrane leading to hereditary spherocytosis, and defective kidney acid secretion leading to distal renal tubular acidosis. Other mutations that do not give rise to disease result in novel blood group antigens, which form the Diego blood group system. Southeast Asian ovalocytosis (SAO, Melanesian ovalocytosis) results from the heterozygous presence of a deletion in the encoded protein and is common in areas where Plasmodium falciparum malaria is endemic. One



Western Blot - Anti-Band 3 Rabbit mAb [48L80L56]

All lanes: R011951 at 1:3,000 dilution

Lane 1: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates

Lane 2: 293T (Human embryonic kidney cell) whole cell lysates

Lane 3: K562 (Human chronic myeloid leukemia cell) whole cell lysates

Lane 4: U87 (Human malignant glioblastoma epithelial cells) whole cell lysates

Lane 5: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates

Lane 6: Mouse testicular whole tissue lysates

Lane 7: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates

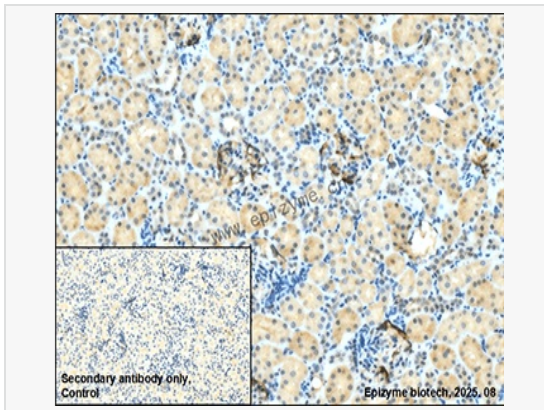
Lysates/proteins at 10 µg per lane.

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

Predicted band size: 102 kDa

Observed band size: 95-100 kDa

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



Immunohistochemistry - Anti-Band 3 Rabbit mAb [48L80L56]

Sample: Paraformaldehyde-fixed, paraffin embedded rat kidney tissue

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

Primary antibody: R011951 at 1:200 dilution

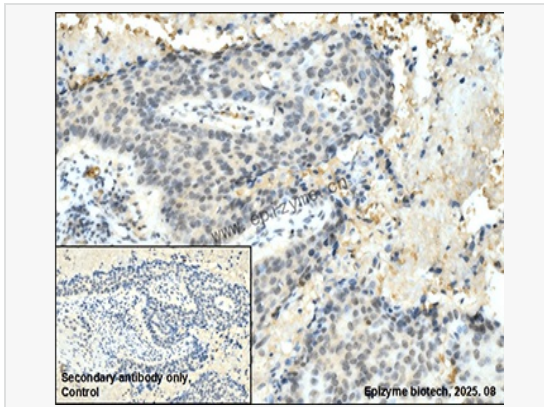
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

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-Band 3 Rabbit mAb [48L80L56]

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

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

Primary antibody: R011951 at 1:200 dilution

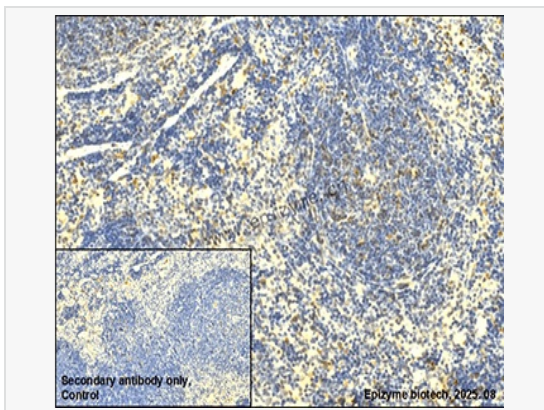
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

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-Band 3 Rabbit mAb [48L80L56]

Sample: Paraformaldehyde-fixed, paraffin embedded mouse spleen tissue

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

Primary antibody: R011951 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.