

Rabbit Band 3 Polyclonal Antibody | anti-Band 3 antibody

Anti-Band 3 Antibody

CATALOG # AAA11648	HOST Rabbit	REACTIVITY Human, Mouse , Rat.	APPLICATIONS Western Blot, Immunohistochemistry
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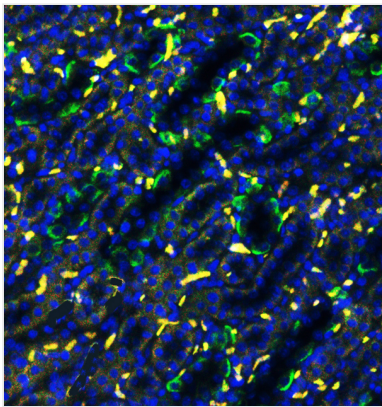
PRODUCT SYNONYMS

Band 3; Polyclonal Antibody; Anti-Band 3 Antibody; Band 3 anion transport protein; AE 1; AE1; Anion exchange protein 1; Anion exchanger 1; B3AT_HUMAN; BND3; CD233; DI; Diego blood group; EMPB3; EPB3; Erythrocyte membrane protein band 3; Erythroid anion exchange protein; FR; Froese blood group; RTA1A; SLC4A1; Solute carrier family 4 anion exchanger member 1; Solute carrier family 4 member 1; SW; Swann blood group; Waldner blood group; WD; WD1; WR; Wright blood group; solute carrier family 4 (anion exchanger); member 1 (Diego blood group); anti-Band 3 antibody

PRODUCT SPECIFICATIONS

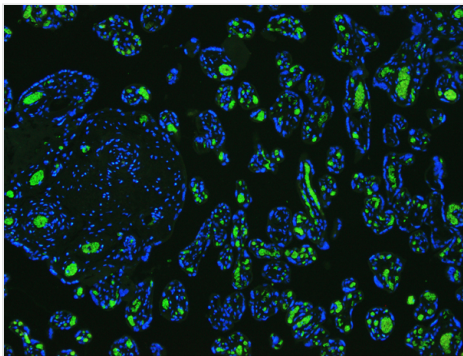
Host	Rabbit
Reactivity	Human, Mouse , Rat.
Clonality	Polyclonal
Isotype	IgG
Specificity	No cross reactivity with other proteins
Purity/Purification	Immunogen Affinity Purified
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Sequence Length	911
Applicable Applications for anti-Band 3 antibody	WB (Western Blot), IHC (Immunohistochemistry)

Application Notes	Immunofluorescence: Concentration: 2ug/ml Tested Species: Human, Rat
	Western Blot: Concentration: 0.1-0.5ug/ml Tested Species: Human, Rat
	Immunohistochemistry (Paraffin-embedded Section) Concentration: 0.5-1ug/ml Tested Species: Human, Mouse, Rat Antigen Retrieval: By Heat
	Immunohistochemistry (Frozen Section) Concentration: 0.5-1ug/ml Tested Species: Human
	Tested Species: In-house tested species with positive results
	By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.
	Other applications have not been tested. Optimal dilutions should be determined by end user.
Immunogen	E Coli-derived human Band 3 (Position: E28-N365). Human Band 3 shares 75.7% and 74.5% amino acid (aa) sequence identity with mouse and rat Band 3, respectively.
Gene Name	Solute carrier family 4 (anion exchanger), member 1 (Diego blood group)
Recommended Protein Name	Band 3 anion transport protein.
Reconstitution	0.2ml of distilled water will yield a concentration of 500ug/ml.
Relevant Detection systems	Enhanced Chemiluminescent Kit with anti-Rabbit IgG (please inquire) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (please inquire) for IHC(P) and IHC(F).
Preparation and Storage	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C. Avoid repeated freeze-thaw cycles



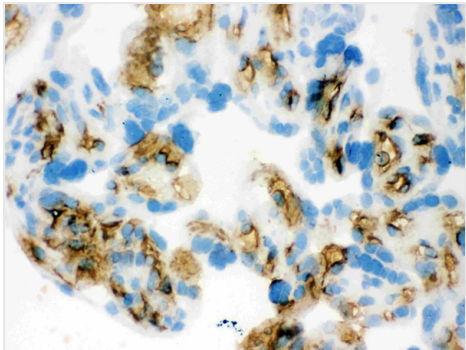
IF (Immunofluorescence)

IF analysis of Band 3 using anti-Band 3 antibody Band 3 was detected in paraffin-embedded section of rat kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-Band 3 Antibody overnight at 4 degree C. DyLight 488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



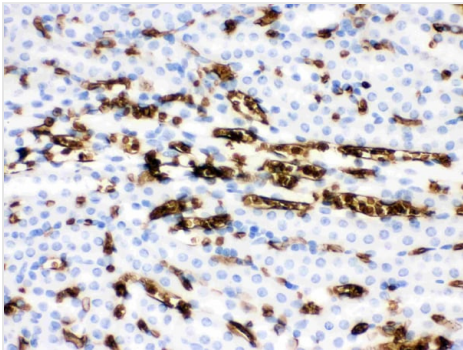
IF (Immunofluorescence)

IF analysis of Band 3 using anti-Band 3 antibody Band 3 was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-Band 3 Antibody overnight at 4 degree C. DyLight 488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



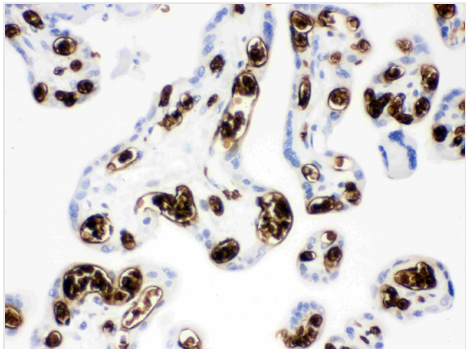
IHC (Immunohistochemistry)

Anti- Band 3 Picoband antibody, AAA11648,IHC(F)IHC(F): Human Placenta Tissue



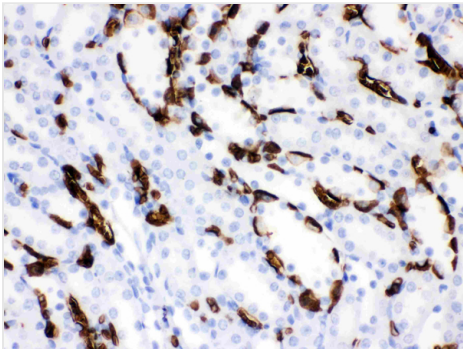
IHC (Immunohistochemistry)

Anti- Band 3 Picoband antibody,IHC(P)IHC(P): Mouse Kidney Tissue



IHC (Immunohistochemistry)

Anti- Band 3 Picoband antibody,IHC(P)IHC(P): Human Placenta Tissue



Application Data

Anti- Band 3 Picoband antibody, AAA11648, IHC(P)IHC(P): Rat Kidney Tissue

ADDITIONAL INFORMATION

Related Product Information for anti-Band 3 antibody	Background: Band 3 is also known as SLC4A1. 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.
References	1. Jarolim P, Palek J, Amato D, Hassan K, Sapak P, Nurse GT et al. (1991). "Deletion in erythrocyte band 3 gene in malaria-resistant Southeast Asian ovalocytosis". Proc. Natl. Acad. Sci. U.S.A. 88 (24): 11022-6. 2. Schlüter K, Drenckhahn D (August 1986). "Co-clustering of denatured hemoglobin with band 3: its role in binding of autoantibodies against band 3 to abnormal and aged erythrocytes". Proc. Natl. Acad. Sci. U.S.A. 83 (16): 6137-41.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4507021
NCBI GeneID	6521
NCBI Accession #	NP_000333.1
NCBI GenBank Nucleotide #	NM_000342.3
UniProt Accession #	P02730 ; P78487 ; Q1ZZ45 ; Q4KKW9 ; Q4VB84 ; Q9UCY7 ; Q9UDJ1 ; G4V216
NCBI Official Full Name	band 3 anion transport protein
NCBI Official Synonym Full Names	solute carrier family 4 member 1 (Diego blood group)
NCBI Official Symbol	SLC4A1
NCBI Official Synonym Symbols	DI; FR; SW; WD; WR; AE1; CHC; SAO; WD1; BND3; EPB3; SPH4; CD233; EMPB3; RTA1A
NCBI Protein Information	band 3 anion transport protein
UniProt Protein Name	Band 3 anion transport protein
UniProt Gene Name	SLC4A1
UniProt Synonym Gene Names	AE1; DI; EPB3; AE 1; Anion exchanger 1
UniProt Entry Name	B3AT_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/band-3-antibody-western-blot-immunohistochemistry-elisa/11648>