

band 3/ AE1 Monoclonal antibody

Catalog Number: 66984-1-Ig

Basic Information

Catalog Number: 66984-1-Ig	GenBank Accession Number: BC101570	Purification Method: Protein A purification
Size: 1000 µg/ml	GeneID (NCBI): 6521	CloneNo.: 1E5C1
Source: Mouse	UNIPROT ID: P02730	Recommended Dilutions: IHC 1:5000-1:20000 IF 1:200-1:800
Isotype: IgG1	Full Name: solute carrier family 4, anion exchanger, member 1 (erythrocyte membrane protein band 3, Diego blood group)	
Immunogen Catalog Number: AG28058	Calculated MW: 911 aa, 102 kDa	

Applications

Tested Applications:

IF-P, IHC, ELISA

Species Specificity:

Human

Positive Controls:

IHC : human placenta tissue,

IF : human placenta tissue,

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

Anion exchanger 1 (AE1), also known as band 3, is a 95-100 kDa transmembrane glycoprotein which is abundantly expressed in erythrocyte plasma membrane and mediates the electroneutral exchange of Cl⁻ and HCO₃⁻. It contains a 52-55 kDa C-terminal membrane crossing domain and a 43 kDa N-terminal cytoplasmic domain. Degradation of band 3 protein occurred during erythrocyte aging. The oxidative stress can also activate the proteolysis of band 3 through caspases. This antibody is expected to recognize the intact band 3 (95-100 kDa) and various degradation products (38-60 kDa). (PMID: 22890269, 29240292, 28130418)

Storage

Storage:

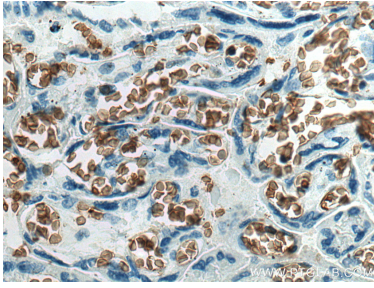
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

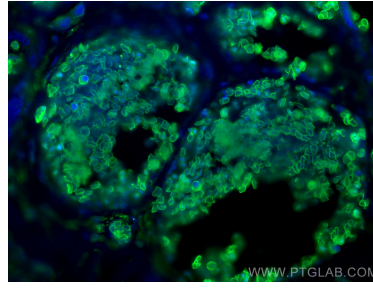
PBS with 0.1% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

Selected Validation Data



Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 66984-1-Ig (band 3/ AE1 antibody) at dilution of 1:10000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed human placenta tissue using band 3/ AE1 antibody (66984-1-Ig, Clone: 1E5C1) at dilution of 1:400 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).