

Band 3/AE 1 Monoclonal antibody

Catalog Number: 66984-1-Ig 1 Publications

Basic Information

Catalog Number:

66984-1-Ig

Size:

1000 µg/ml

Source:

Mouse

Isotype:

IgG1

Immunogen Catalog Number:

AG28058

GenBank Accession Number:

BC101570

GeneID (NCBI):

6521

UNIPROT ID:

P02730

Full Name:

solute carrier family 4, anion exchanger, member 1 (erythrocyte membrane protein band 3, Diego blood group)

Calculated MW:

911 aa, 102 kDa

Purification Method:

Protein A purification

CloneNo.:

1E5C1

Recommended Dilutions:

IHC 1:5000-1:20000

IF-P 1:200-1:800

Applications

Tested Applications:

IHC, IF-P, ELISA

Cited Applications:

IHC

Species Specificity:

human

Cited Species:

mouse

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

Positive Controls:

IHC : human placenta tissue,

IF-P : human placenta tissue,

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)

Notable Publications

Author	Pubmed ID	Journal	Application
Yuan Xie	39191260	Neuron	IHC

Storage

Storage:

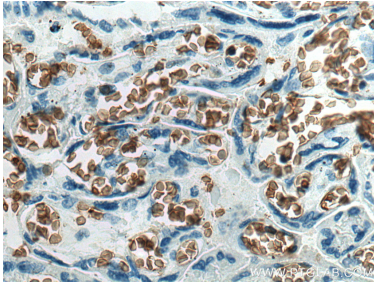
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

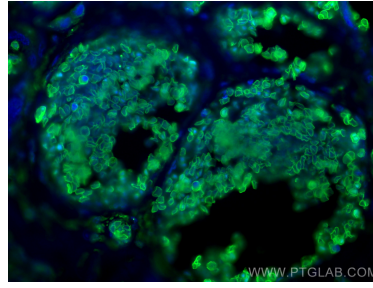
PBS with 0.1% sodium azide and 50% glycerol pH 7.3.

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 Goat Anti-Mouse IgG(H+L).