

#20112 Store at -20°C

**AE1/SLC4A1 (D3X1R) Rabbit mAb
(IF Formulated)****Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: IF-F, IF-IC	Reactivity: H M R	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #P02730	Entrez-Gene Id: 6521
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Product Usage Information	Application Immunofluorescence (Frozen) Immunofluorescence (Immunocytochemistry)	Dilution 1:200 1:200
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	AE1/SLC4A1 (D3X1R) Rabbit mAb (IF Formulated) recognizes endogenous levels of total AE1 protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala176 of human AE1 protein.	
Background	Anion exchange protein 1 (AE1), also named solute carrier family 4 member 1 (SLC4A1), is an anion transporter that mediates chloride-bicarbonate exchange in the kidney and regulates normal acidification of the urine (1,2). A different isoform of AE1 is a major integral membrane structure protein of erythrocytes, where it plays a critical role in the removal of carbon dioxide from tissues (3). In addition, AE1 is required for normal flexibility and stability of the erythrocyte membrane. Mutations in <i>SLC4A1</i> can lead to hereditary spherocytosis, ovalocytosis, and distal renal tubular-acidosis (4-7). Other mutations that do not cause disease became novel blood group antigens, which are part of the Diego blood group system (8).	
Background References	1. Kopito, R.R. and Lodish, H.F. <i>Nature</i> 316, 234-8. 2. Kollert-Jöns, A. et al. (1993) <i>Am J Physiol</i> 265, F813-21. 3. Swenson, E.R. et al. (1993) <i>J Appl Physiol</i> (1985) 74, 838-48. 4. Jarolim, P. et al. (1991) <i>Proc Natl Acad Sci U S A</i> 88, 11022-6. 5. Maillet, P. et al. (1995) <i>Br J Haematol</i> 91, 804-10. 6. Quilty, J.A. et al. (2002) <i>Am J Physiol Renal Physiol</i> 282, F810-20. 7. Escobar, L. et al. (2013) <i>Nefrologia</i> 33, 289-96. 8. Figueroa, D. (2013) <i>Immunohematology</i> 29, 73-81.	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Applications Key	IF-F: Immunofluorescence (Frozen) IF-IC: Immunofluorescence (Immunocytochemistry)
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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