

NKCC2 (D5Q1H) Rabbit mAb (IF Formulated)

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: IF-F	Reactivity: M	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #Q13621	Entrez-Gene Id: 6557
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Product Usage Information	Application Immunofluorescence (Frozen)	Dilution 1:400
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	NKCC2 (D5Q1H) Rabbit mAb (IF Formulated) recognizes endogenous levels of total NKCC2 protein.	
Species predicted to react based on 100% sequence homology	Human	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human NKCC2 protein.	
Background	The Na-K-2Cl cotransporter (NKCC2) is a sodium-potassium-chloride cotransporter. It is mainly expressed on the luminal membrane of renal epithelial cells of the thick ascending limb of Henle's loop (TALH) and mediates the majority of NaCl resorption and concentration of urine (1,2). NKCC2 is the target for several diuretic drugs, such as bumetanide, and is involved in the pathogenesis of hypertension (3,4). Mutations in the NKCC2-encoding gene, <i>SLC12A1</i> , causes Bartter's syndrome, which is featured by impaired salt reabsorption in the TALH, hypokalemic metabolic alkalosis, and hypercalciuria (5,6). Recently, NKCC2 was reported to be expressed in the brain hypothalamo-neurohypophyseal system (HNS) and upregulated upon osmotic stress (7).	
Background References	<ol style="list-style-type: none"> 1. Igarashi, P. et al. (1996) <i>J Biol Chem</i> 271, 9666-74. 2. Kaplan, M.R. et al. (1996) <i>J Clin Invest</i> 98, 723-30. 3. Markadieu, N. and Delpire, E. (2014) <i>Pflugers Arch</i> 466, 91-105. 4. Orlov, S.N. et al. (2015) <i>Genes Dis</i> 2, 186-196. 5. Vargas-Poussou, R. et al. (1998) <i>Am J Hum Genet</i> 62, 1332-40. 6. Simon, D.B. et al. (1996) <i>Nat Genet</i> 13, 183-8. 7. Konopacka, A. et al. (2015) <i>J Neurosci</i> 35, 5144-55. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Applications Key	IF-F: Immunofluorescence (Frozen)
Cross-Reactivity Key	M: Mouse
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