

AR09181PU-N

Recombinant human SLC4A4 / NBC1 Isoform 2 (aa 1-424), His-tagged

Alternate names:	Electrogenic sodium bicarbonate cotransporter 1, NBC, NBC1, Na(+)/HCO ₃ (-) cotransporter, Sodium bicarbonate cotransporter 1, Solute carrier family 4 member 4
Quantity:	0.1 mg
Concentration:	0.5 mg/ml (determined by Bradford assay)
Background:	Sodium bicarbonate cotransporters (NBCs) mediate the coupled movement of sodium and bicarbonate ions across the plasma membrane of many cells. This is an electrogenic process with an apparent stoichiometry of 3 bicarbonate ions per sodium ion. NBC1 has been identified as a key player for regulation of intracellular pH in several cell types. NBC1 Isoform 2 is specifically expressed in kidney at the level of proximal tubules.
Uniprot ID:	Q9Y6R1
NCBI:	NP_003750
GeneID:	8671
Species:	Human
Source:	E. coli
Format:	State: Liquid purified protein Purity: >90% by SDS - PAGE Buffer System: 20 mM Tris-HCl buffer (pH 7.5) containing 0.5 mM DTT, 0.1 mM PMSF, 10% glycerol
Description:	Recombinant human NBC1, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography. AA Sequence: MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMSSTE NVEGKPSNLG ERGRARSSTF LRVVQPMFNH SIFTSVAVSPA AERIRFILGE EDDSPAPPQL FTELDELLAV DGQEMEWKET ARWIKFEEKV EQGGERWSKP HVATLSLHSL FELRTCMEKG SIMLDREASS LPQLVEMIVD HQIETGLLKP ELKDKVITYTL LRKHRHQTKK SNLRSLADIG KTVSSASRMF TNPDNQSPAM THRNLTSSSL NDISDKPEKD QLKNKFMKKL PRDAEASNVL VGEVDFLDTP FIAFVRLQQA VMLGALTEVP VPTRFLFILL GPKGKAQSYH EIGRAIATLM SDEVFHDIAK KAKDRHDLIA GIDEFLDEVI VLPPGEWDPA IRIEPPKSLP SSDKRKNMYS GGENVQMNGD TPHDGGHGGG GHGDCEELQR TGRFCGGLIK DIKRKAPFFA SDFYDALNIQ Molecular weight: 51.5 kDa (460 aa)
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	1. Rickmann M, Orlowski B, Heupel K, Roussa E. Distinct expression and subcellular localization patterns of Na ⁺ /HCO ₃ ⁻ cotransporter (SLC 4A4) variants NBCe1-A and NBCe1-B in mouse brain. Neuroscience. 2007 May 25;146(3):1220-31. Epub 2007 Apr 12. PubMed PMID: 17433553.

2. Zhu Q, Azimov R, Kao L, Newman D, Liu W, Abuladze N, et al. NBCE1-A Transmembrane Segment 1 Lines the Ion Translocation Pathway. J Biol Chem. 2009 Mar 27;284(13):8918-29. doi: 10.1074/jbc.M806674200. Epub 2009 Jan 21. PubMed PMID: 19158093.

Pictures:

NBC1, 1-424 aa human, His-tagged, recombinant, E.coli: 15% SDS-PAGE (3 µg)

