

SLC24 – Na⁺/(Ca²⁺-K⁺) exchanger family

Human gene name	Protein name	Aliases	Predominant substrates	Transport type / coupling ions ^{*)}	Tissue distribution and cellular / subcellular expression	Link to disease	Human gene locus	Sequence accession ID	Splice variants and their features
SLC24A1	NCKX1	RODX, HsT17412, KIAA0702	Na ⁺ , Ca ²⁺ , K ⁺	E/4Na ⁺ /Ca ²⁺ -K ⁺	rod photoreceptors, platelets		15q22	NM_004727	
SLC24A2	NCKX2		Na ⁺ , Ca ²⁺ , K ⁺	E/4Na ⁺ /Ca ²⁺ -K ⁺	brain, retinal cone photoreceptors, retinal ganglion cells		9p22-p13	NM_020344	
SLC24A3	NCKX3		Na ⁺ , Ca ²⁺ , K ⁺	E/4Na ⁺ /Ca ²⁺ -K ⁺	brain, aorta, uterus, intestine		20p13	NM_020689	
SLC24A4	NCKX4	SHEP6, FLJ38852	Na ⁺ , Ca ²⁺ , K ⁺	E/4Na ⁺ /Ca ²⁺ -K ⁺	brain, aorta, lung, thymus		14q32.12	NM_153646 NM_153647 NM_153648	variant 2 uses alternate in-frame splice site (shorter compared to isoform 1); variant 3 differs in 5' UTR and coding region compared to variant 1
SLC24A5	NCKX5	JSX, SHEP4	Na ⁺ , Ca ²⁺ , K ⁺	E/4Na ⁺ /Ca ²⁺ -K ⁺	retina, brain, thymus, skin		15q21.1	NM_205850	
SLC24A6	NCKX6	FLJ22233, NCLX	Na ⁺ , Ca ²⁺ , K ⁺	E/4Na ⁺ /Ca ²⁺ -K ⁺	widespread		12q24.13	NM_024959	

*) C: Cotransporter; E: Exchanger; F: Facilitated transporter; O: Orphan transporter

References:

Original version of the SLC table:

[Schnetkamp PP](#). The SLC24 Na⁽⁺⁾/Ca⁽²⁺⁾-K⁽⁺⁾ exchanger family: vision and beyond. Pflugers Arch. 2004 Feb;447(5):683-8

Questions & Comments