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BTR1 Polyclonal Antibody

Catalog # AP68728

Product Information

Application	WB, E
Primary Accession	Q8NBS3
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	98181

Additional Information

Gene ID	83959
Other Names	SLC4A11; BTR1; Sodium bicarbonate transporter-like protein 11; Bicarbonate transporter-related protein 1; Sodium borate cotransporter 1; NaBC1; Solute carrier family 4 member 11
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications. E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

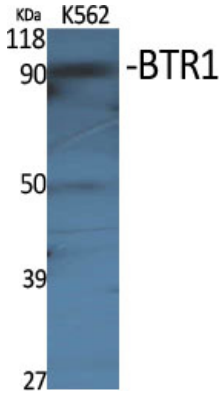
Name	SLC4A11
Synonyms	BTR1
Function	Multifunctional transporter with an impact in cell morphology and differentiation. In the presence of borate B(OH)4(-), acts as a voltage-dependent electrogenic Na(+)-coupled B(OH)4(-) cotransporter controlling boron homeostasis (PubMed:15525507). At early stages of stem cell differentiation, participates in synergy with ITGA5-ITGB1 and ITGAV-ITGB3 integrins and BMPR1A to promote cell adhesion and contractility that drives differentiation toward osteogenic commitment while inhibiting adipogenesis (By similarity). In the absence of B(OH)4(-), acts as a Na(+)-coupled OH(-) or H(+) permeable channel with implications in cellular redox balance (PubMed:15525507, PubMed:28642546). Regulates the oxidative stress response in corneal endothelium by enhancing antioxidant defenses and protecting cells from reactive oxygen species (PubMed:28642546). In response to hypo-osmotic challenge, also acts as a water permeable channel at the basolateral cell membrane of corneal endothelial cells and facilitates

	transendothelial fluid reabsorption in the aqueous humor (PubMed:23813972, PubMed:25007886, PubMed:31273259). In the presence of ammonia, acts as an electrogenic NH3/H(+) cotransporter and may play a role in ammonia transport and reabsorption in renal Henle's loop epithelium (PubMed:27581649).
Cellular Location	Cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein
Tissue Location	Widely expressed. Highly expressed in kidney, testis, salivary gland, thyroid, trachea and corneal endothelium. Not detected in retina and lymphocytes. [Isoform 5]: The predominant isoform in corneal endothelium (at protein level).

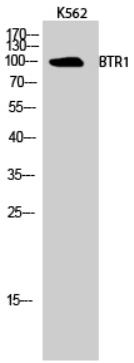
Background

Transporter which plays an important role in sodium- mediated fluid transport in different organs. Prevents severe morphological changes of the cornea caused by increased sodium chloride concentrations in the stroma. In the inner ear, is involved in transport of potassium through the fibrocyte layer to the stria vascularis and is essential for the generation of the endocochlear potential but not for regulation of potassium concentrations in the endolymph. In the kidney, is essential for urinary concentration, mediates a sodium flux into the thin descending limb of Henle loop to allow countercurrent multiplication by osmotic equilibration (By similarity). Involved in borate homeostasis. In the absence of borate, it functions as a Na(+) and OH(-)(H(+)) channel. In the presence of borate functions as an electrogenic Na(+) coupled borate cotransporter.

Images



Western Blot analysis of various cells using BTR1 Polyclonal Antibody



Western Blot analysis of K562 cells using BTR1 Polyclonal Antibody

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.