

8. LITERATURVERZEICHNIS:

A:

- ABDOUN, K., WOLF, K., ARNDT, G. MARTENS, H. (2003)
Effect of ammonia on Na⁺ transport across isolated rumen epithelium of sheep is diet dependent.
Br J Nutr **90**(4): S. 751-8
- AL-BAZZAZ, F. J., HAFEZ, N., TYAGI, S., GAILEY, C. A., TOOFANFARD, M., ALREFAI, W. A., NAZIR, T. M., RAMASWAMY, K. DUDEJA, P. K. (2001)
Detection of Cl-HCO₃⁻ and Na⁺-H⁺ exchangers in human airways epithelium.
Jop **2**(4 Suppl): S. 285-90
- ALBER, B. E. FERRY, J. G. (1994)
A carbonic anhydrase from the archaeon Methanosarcina thermophila.
Proc Natl Acad Sci U S A **91**(15): S. 6909-13
- ALI, O. H. A. (2005)
In vitro studies of ion transport in sheep omasum: interaction between Na, Cl and short chain fatty acids
Diss., Veterinär-Physiology, Berlin, Freie Universität, S.138
- ALPER, S. L., CHERNOVA, M. N. STEWART, A. K. (2001)
Regulation of Na⁺-independent Cl-/HCO₃⁻ exchangers by pH.
Jop **2**(4 Suppl): S. 171-5
- ALPER, S. L., DARMAN, R. B., CHERNOVA, M. N. DAHL, N. K. (2002)
The AE gene family of Cl/HCO₃⁻ exchangers.
J Nephrol **15**(Suppl 5): S. S41-53
- ALPERN, S. L., ROSSMANN, H., WILHELM, S., STUART-TILLEY, A. K., SHMUKLER, B. E. SEIDLER, U. (1999)
Expression of AE2 anion exchanger in mouse intestine.
Am J Physiol Gastrointest Liver Physiol **277**(2): S. G321-332
- ARNDT, G., SCHMITZ, R., DAHMS, S. WEIß, H. (1999)
Unterlagen für die Pflichtveranstaltung Biometrie am Fachbereich Veterinärmedizin der Freien Universität Berlin.
Berlin, Institut für Biometrie und Informationsverarbeitung des Fachbereichs Veterinärmedizin der FU-Berlin

B:

- BADAWY, A. M., CAMPBELL, R. M., CUTHBERTSON, D. P., FELL, B. F. MACKIE, W. S. (1958a)
Further studies on the changing composition of the digesta along the alimentary tract of the sheep.
1. Total and non-protein nitrogen.
Br J Nutr **12**(4): S. 367-83

- BADAWY, A. M., CAMPBELL, R. M., CUTHBERTSON, D. P. MACKIE, W. S. (1958b)
Further studies on the changing composition of the digesta along the alimentary tract of the sheep.
2. Volatile fatty acids and energy relative to lignin.
Br J Nutr **12**(4): S. 384-90
- BADAWY, A. M., CAMPBELL, R. M., CUTHBERTSON, D. P. MACKIE, W. S. (1958c)
Further studies on the changing composition of the digesta along the alimentary tract of the sheep.
3. Changes in the omasum.
Br J Nutr **12**(4): S. 391-403
- BASTARD, J. P., CHAMBERT, S., CEPPA, F., COUDE, M., GRAPEZ, E., LORIC, S., MUZEAU, F., SPYRATOS, F., POIRIER, K., COPOIS, V., TSE, C. BIENVENU, T. (2002)
[RNA isolation and purification methods].
Ann Biol Clin (Paris) **60**(5): S. 513-23
- BEN-GHEDALIA, D., TAGARI, H., ZAMWEL, S. BONDI, A. (1975)
Solubility and Net Exchange of Calcium, Magnesium and Phosphorus in Digesta Flowing Along Gut of Sheep.
British Journal of Nutrition **33**(1): S. 87-94
- BENOS, D. J. (1982)
Amiloride: a molecular probe of sodium transport in tissues and cells.
Am J Physiol **242**(3): S. C131-45
- BILK, S., HUHN, K., HONSCHA, K. U., PFANNKUCHE, H. GÄBEL, G. (2005)
Bicarbonate exporting transporters in the ovine ruminal epithelium.
J Comp Physiol [B] **175**(5): S. 365-74
- BONHAM, M. J. DANIELPOUR, D. (1996)
Improved purification and yields of RNA by RNeasy.
Biotechniques **21**(1): S. 57-60
- BORON, W. F. (2001)
Sodium-coupled bicarbonate transporters.
JOP **2**(4 Suppl): S. 176-81
- BRETON, S. (2001)
The cellular physiology of carbonic anhydrases.
JOP **2**(4 Suppl): S. 159-64
- BREVES, G. (1991)
Physiologische Grundlagen des gastrointestinalen P-Umsatzes und Bedeutung einer nicht bedarfsgerechten P-Versorgung bei kleinen Wiederkäuern.
Übers. Tierernährung. **19**: S. 23-44
- BROSIUS, F. (2002)
SPSS 11. -1. Aufl
Bonn: mitp- ISBN:3-8266-0922-0

- BROWNLEE, A. ELLIOT, J. (1960)
Studies on the normal and abnormal structure and function of the omasum of domestic cattle.
British veterinary journal **116**(12): S. 467-473
- BUENO, L. RUCKEBUS. Y (1974)
Cyclic Motility of Omasum and Its Control in Sheep.
Journal of Physiology-London **238**(2): S. 295-312
- BUENO, L., RUCKEBUS. Y, GOODALL, E. D. KAY, R. N. B. (1972)
Function of Sheeps Omasum.
Journal of Physiology-London **227**(2): S. P14-&
- BUSTIN, S. A. (2000)
Absolute quantification of mRNA using real-time reverse transcription polymerase chain reaction assays.
J Mol Endocrinol **25**(2): S. 169-93
- BUSTIN, S. A. (2002)
Quantification of mRNA using real-time reverse transcription PCR (RT-PCR): trends and problems.
J Mol Endocrinol **29**(1): S. 23-39
- C:**
- CABANTCHIK, Z. I. GREGER, R. (1992)
Chemical probes for anion transporters of mammalian cell membranes.
Am J Physiol Cell Physiol **262**(4): S. C803-827
- CARE, A. D. (1994)
The absorption of phosphate from the digestive tract of ruminant animals.
Br Vet J **150**(2): S. 197-205
- CHARNEY, A. N., WAGNER, J. D., BIRNBAUM, G. J. JOHNSTONE, J. N. (1986)
Functional role of carbonic anhydrase in intestinal electrolyte transport.
Am J Physiol **251**(5 Pt 1): S. G682-7
- CHEGWIDDEN, W. R. CARTER, N. D. (2000)
Introduction to the carbonic anhydrases.
in: EXS,
Basel (CH) Birkäuser Verlag ISBN:1023-294X
aus: New Horizons, S. 14-28
- CHERNOVA, M. N., JIANG, L., SHMUKLER, B. E., SCHWEINFEST, C. W., BLANCO, P., FREEDMAN, S. D., STEWART, A. K. ALPER, S. L. (2003)
Acute regulation of the SLC26A3 congenital chloride diarrhoea anion exchanger (DRA) expressed in *Xenopus* oocytes.
J Physiol **549**(Pt 1): S. 3-19
- CHOI, J. Y., LEE, M. G., KO, S. MUALLEM, S. (2001)
Cl(-)-dependent HCO₃⁻ transport by cystic fibrosis transmembrane conductance regulator.
Jop **2**(4 Suppl): S. 243-6

CHOWDARY, D., LATHROP, J., SKELTON, J., CURTIN, K., BRIGGS, T., ZHANG, Y., YU, J., WANG, Y. MAZUMDER, A. (2006)

Prognostic gene expression signatures can be measured in tissues collected in RNAlater preservative.

J Mol Diagn **8**(1): S. 31-9

CHRISTIANSON, D. W. COX, J. D. (1999)

Catalysis by metal-activated hydroxide in zinc and manganese metalloenzymes.

Annu Rev Biochem **68**: S. 33-57

CONROY, C. W. MAREN, T. H. (1995)

The effect of temperature on the binding of sulfonamides to carbonic anhydrase isoenzymes I, II, and IV.

Mol Pharmacol **48**(3): S. 486-91

COON, S. SUNDARAM, U. (2003)

Unique regulation of anion/HCO₃⁻ exchangers by constitutive nitric oxide in rabbit small intestine.

American Journal of Physiology-Gastrointestinal and Liver Physiology **285**(6): S. G1084-G1090

D:

DAGHER, P. C., BEHM, T., TAGLIETTA-KOHLBRECHER, A., EGNOR, R. W. CHARNEY, A. N. (1996)

Dissociation of colonic apical Na/H exchange activity from bulk cytoplasmic pH.

Am J Physiol **270**(6 Pt 1): S. C1799-806

DAGHER, P. C., EGNOR, R. W. CHARNEY, A. N. (1993)

Effect of intracellular acidification on colonic NaCl absorption.

Am J Physiol Gastrointest Liver Physiol **264**(3): S. G569-575

DEUTSCH, H. F. (1987)

Carbonic anhydrases.

Int J Biochem **19**(2): S. 101-13

DHEDA, K., HUGGETT, J. F., CHANG, J. S., KIM, L. U., BUSTIN, S. A., JOHNSON, M. A., ROOK, G. A. ZUMLA, A. (2005)

The implications of using an inappropriate reference gene for real-time reverse transcription PCR data normalization.

Anal Biochem **344**(1): S. 141-3

DIAMOND, G., SCANLIN, T. F., ZASLOFF, M. A. BEVINS, C. L. (1991)

A cross-species analysis of the cystic fibrosis transmembrane conductance regulator. Potential functional domains and regulatory sites.

J. Biol. Chem. **266**(33): S. 22761-22769

DIRKSEN, G. (1961)

Die Erweiterung, Verlagerung und Drehung des Labmagens Beim Rind.

Zentralblatt für Veterinärmedizin **8**(9): S. 934-&

DIRKSEN, G., LIEBICH, H. G., BROSI, G., HAGEMEISTER, H. MAYER, E. (1984)

[Morphology of the rumen mucosa and fatty acid absorption in cattle--important factors for health and production].

Zentralbl Veterinarmed A **31**(6): S. 414-30

DUBBERKE, M. (1988)

Studies on the flux of inorganic phosphate and of calcium across the isolated mucosa of the sheep omasum
Diss., Veterinär-Physiologie, Berlin, Freie Universität, S.137

E:

EARNHARDT, J. N., QIAN, M., TU, C., LAKKIS, M. M., BERGENHEM, N. C., LAIPIS, P. J., TASHIAN, R. E. SILVERMAN, D. N. (1998)

The catalytic properties of murine carbonic anhydrase VII.
Biochemistry **37**(30): S. 10837-45

EDRISE, B. M. SMITH, R. H. (1979)

Absorption and secretion in the omasum of the young steer.
Ann Rech Vet **10**(2-3): S. 354-5

EDRISE, B. M. SMITH, R. H. (1986)

Exchanges of magnesium and phosphorus at different sites in the ruminant stomach.
Arch Tierernahr **36**(11): S. 1019-27

EDRISE, B. M., SMITH, R. H. HEWITT, D. (1986)

Exchanges of water and certain water-soluble minerals during passage of digesta through the stomach compartments of young ruminating bovines.
Br J Nutr **55**(1): S. 157-68

EKMAN, J. SPERBER, I. (1953)

The distribution of concentrations of bicarbonate (including carbon dioxide) and chloride in the omasum of cows.
Kunl. Lantbrukshögskolans Annaler **19**: S. 227 - 231

ELADARI, D., BLANCHARD, A., LEVIEL, F., PAILLARD, M., STUART-TILLEY, A. K., ALPER, S. L. PODEVIN, R. A. (1998)

Functional and molecular characterization of luminal and basolateral Cl⁻/HCO₃⁻ exchangers of rat thick limbs.
Am J Physiol **275**(3 Pt 2): S. F334-42

ENGELHARDT, W. V. HAUFFE, R. (1975a)

Functions of Omasum in Small Domestic Ruminants .4. Absorption and Secretion of Electrolytes.
Zentralblatt Fur Veterinarmedizin - Reihe A **22**(5): S. 363-375

ENGELHARDT, W. V. HAUFFE, R. (1975b)

Role of the omasum in absorption and secretion of water and electrolytes in sheep and goats.
Digestion and Metabolism in the Ruminant. I. W. McDonald and A. C. I. Warner.
Armidale: University of New England Publishing Unit: 216 - 230

F:

FAVILLI, N. (1937)

Struktur und Tätigkeit des dritten Magens (Blättermagen oder Psalter) bei den Hauswiederkäuern.
Deutsche Tierärztliche Wochenschrift: S. 592 - 594

FERREIRA, H. G., HARRISON, F. A. KEYNES, R. D. (1966)
Potential and Short-Circuit Current across Isolated Rumen Epithelium of Sheep.
Journal of Physiology-London **187**(3): S. 631-&

FITT, T. J., HUTTON, K. ARMSTRONG, D. G. (1979)
Site of absorption of magnesium from the ovine digestive tract.
Proc Nutr Soc **38**(2): S. 65A

FLEIGE, S. PFAFFL, M. W. (2006)
RNA integrity and the effect on the real-time qRT-PCR performance.
Mol Aspects Med **27**(2-3): S. 126-39

G:

GÄBEL, G., ASCHENBACH, J. R. MULLER, F. (2002)
Transfer of energy substrates across the ruminal epithelium: implications and limitations.
Anim Health Res Rev **3**(1): S. 15-30

GÄBEL, G., BESTMANN, M. MARTENS, H. (1991a)
Influences of diet, short-chain fatty acids, lactate and chloride on bicarbonate movement across the reticulo-rumen wall of sheep.
Zentralbl Veterinarmed A **38**(7): S. 523-9

GÄBEL, G., VOGLER, S. MARTENS, H. (1991b)
Short-chain fatty acids and CO₂ as regulators of Na⁺ and Cl⁻ absorption in isolated sheep rumen mucosa.
J Comp Physiol [B] **161**(4): S. 419-26

GALFI, P., KUTAS, F. NEOGRADY, S. (1982)
Immunohistochemical detection of bovine ruminal carbonic anhydrase isoenzyme.
Histochemistry **74**(4): S. 577-84

GARTON, G. A. (1951)
Observations on the distribution of inorganic phosphorus, soluble calcium and soluble magnesium in the stomach of the sheep.
J. Exp. Biol. **28**: S. 358 - 368

GIESECKE, D. ENGELHARDT, W. V. (1975)
Functions of Omasum in Small Ruminants
2. Fermentation Rate and DNA Content.
Zentralblatt Fur Veterinarmedizin - Reihe A **22**(3): S. 177-186

GINZINGER, D. G. (2002)
Gene quantification using real-time quantitative PCR: an emerging technology hits the mainstream.
Exp Hematol **30**(6): S. 503-12

GOLDFARB, D. S., EGNOR, R. W. CHARNEY, A. N. (1988)
Effects of acid-base variables on ion transport in rat colon.
J Clin Invest **81**(6): S. 1903-10

GRACE, N. D. (1981)
Phosphorus kinetics in the sheep.
Br J Nutr **45**(2): S. 367-74

- GRACE, N. D., ULYATT, M. J. MACRAE, J. C. (1974)
Quantitative digestion of fresh herbage by sheep
III. The movement of Mg, Ca, P, K, and Na in the digestive tract.
J. Agric. Sci. Camb. **82**: S. 321 - 330
- GREENE, L. W., WEBB, K. E., JR. FONTENOT, J. P. (1983)
Effect of potassium level on site of absorption of magnesium and other
macroelements in sheep.
J Anim Sci **56**(5): S. 1214-21
- H:**
- HAMASAKI, N., IIDA, H. KINOSHITA, S. (2001)
[Molecular biology techniques as clinical laboratory tests].
Rinsho Byori **49**(1): S. 9-18
- HARRISON, F. A. (1971)
Ion Transport across Rumen and Omasum Epithelium.
Philosophical Transactions of the Royal Society of London Series B-Biological
Sciences **262**(842): S. 301-&
- HARRISON, F. A., KEYNES, R. D. ZURICH, L. (1970)
Ion Transport across Isolated Omasal Epithelium of Sheep.
Journal of Physiology-London **207**(1): S. P24-&25
- HAUFFE, R. ENGELHARDT, W. V. (1975a)
Functions of Omasum of Small Ruminants
3. Absorption of Water.
Zentralblatt Fur Veterinarmedizin - Reihe A **22**(4): S. 283-295
- HAUFFE, R. ENGELHARDT, W. V. (1975b)
Functions of Omasum of Small Ruminants
1. Flow and Retention Time of Solid Particles and Fluid.
Zentralblatt Fur Veterinarmedizin - Reihe A **22**(2): S. 149-163
- HIGUCHI, R., FOCKLER, C., DOLLINGER, G. WATSON, R. (1993)
Kinetic PCR analysis: real-time monitoring of DNA amplification reactions.
Biotechnology (N Y) **11**(9): S. 1026-30
- HÖFELMEIER, G. (1991)
Untersuchungen über die Wirkung von Lasalocid auf Transportvorgänge isolierter
Vormagenepithelien von Schafen
Diss., Veterinär-Physiologie, Hannover, Tierärztl. Hochsch., S.145
- HOFFMANN, E. K. (1986)
Anion transport systems in the plasma membrane of vertebrate cells.
Biochim Biophys Acta **864**(1): S. 1-31
- HOLLER, H., BREVES, G. DUBBERKE, M. (1988)
Flux of inorganic phosphate and calcium across the isolated mucosa of the sheep
omasum.
Zentralbl Veterinarmed A **35**(9): S. 709-16

HOLTENIUS, K. BJORNHAG, G. (1989)

The significance of water absorption and fibre digestion in the omasum of sheep, goats and cattle.

Comp Biochem Physiol A **94**(1): S. 105-9

HUG, M. J., TAMADA, T. BRIDGES, R. J. (2003)

CFTR and Bicarbonate Secretion to Epithelial Cells.

News Physiol Sci **18**(1): S. 38-42

HUMPHREYS, B. D., JIANG, L., CHERNOVA, M. N. ALPER, S. L. (1994)

Functional characterization and regulation by pH of murine AE2 anion exchanger expressed in *Xenopus* oocytes.

Am J Physiol **267**(5 Pt 1): S. C1295-307

I:

IKUMA, M., GEIBEL, J., BINDER, H. J. RAJENDRAN, V. M. (2003)

Characterization of Cl-HCO₃ exchange in basolateral membrane of rat distal colon.

Am J Physiol Cell Physiol **285**(4): S. C912-921

J:

JACOB, P., ROSSMANN, H., LAMPRECHT, G., KRETZ, A., NEFF, C., LIN-WU, E.,

GREGOR, M., GRONEBERG, D. A., KERE, J. SEIDLER, U. (2002)

Down-regulated in adenoma mediates apical Cl-/HCO₃- exchange in rabbit, rat, and human duodenum.

Gastroenterology **122**(3): S. 709-724

JENTSCH, T. J., MARITZEN, T. ZDEBIK, A. A. (2005)

Chloride channel diseases resulting from impaired transepithelial transport or vesicular function.

J Clin Invest **115**(8): S. 2039-46

K:

KO, S. B. H., LUO, X., HAGER, H., ROJEK, A., YOUNG CHOI, J., LICHT, C., SUZUKI, M.,

MUALLEM, S., NIELSEN, S. ISHIBASHI, K. (2002)

AE4 is a DIDS-sensitive Cl-/HCO₃- exchanger in the basolateral membrane of the renal CCD and the SMG duct.

Am J Physiol Cell Physiol **283**(4): S. C1206-1218

KREUZER, K. A., LASS, U., LANDT, O., NITSCHKE, A., LASER, J., ELLERBROK, H., PAULI,

G., HUHN, D. SCHMIDT, C. A. (1999)

Highly sensitive and specific fluorescence reverse transcription-PCR assay for the pseudogene-free detection of beta-actin transcripts as quantitative reference.

Clin Chem **45**(2): S. 297-300

KRÜTZFELDT, T. (2002)

Die Auswirkungen luminaler Ammoniakkonzentrationen auf den Natriumtransport am Psalter von Schafen in Abhängigkeit von der Fütterung

Diss., Veterinär-Physiology, Berlin, Freie Universität, S.69

URL:<http://library.vetmed.fu-berlin.de/diss-abstracts/131507.html>

KUNZELMANN, K. SCHREIBER, R. (1999)
CFTR, a regulator of channels.
J Membr Biol **168**(1): S. 1-8

L:

LAMPRECHT, G., BAISCH, S., SCHOENLEBER, E. GREGOR, M. (2005)
Transport properties of the human intestinal anion exchanger DRA (down-regulated in adenoma) in transfected HEK293 cells.
Pflugers Arch **449**(5): S. 479-90

LASKI, M. E., WARNOCK, D. G. RECTOR, F. C., JR (1983)
Effects of chloride gradients on total CO₂ flux in the rabbit cortical collecting tubule.
Am J Physiol Renal Physiol **244**(2): S. F112-121

LEHNINGER, A. L., NELSON, D. COX, J. V. (2001)
Prinzipien der Biochemie: Springer Verlag- ISBN:354041813X

LIEBICH, H. G., DIRKSEN, G., ARBEL, A., DORI, S. MAYER, E. (1987)
[Feed-dependent changes in the rumen mucosa of high-producing cows from the dry period to eight weeks post partum].
Zentralbl Veterinarmed A **34**(9): S. 661-72

LINDSKOG, S. (1997)
Structure and mechanism of carbonic anhydrase.
Pharmacol Ther **74**(1): S. 1-20

LIVAK, K. J. SCHMITTGEN, T. D. (2001)
Analysis of relative gene expression data using real-time quantitative PCR and the 2(-Delta Delta C(T)) Method.
Methods **25**(4): S. 402-8

M:

MACRAE, J. C. ARMSTRONG, D. G. (1969)
Studies on intestinal digestion in the sheep. I. The use of chromic oxide as an indigestible marker.
Br J Nutr **23**(1): S. 15-23

MACRAE, J. C. WILSON, S. (1977)
The effects of various forms of gastrointestinal cannulation on digestive measurements in sheep.
Br J Nutr **38**(1): S. 65-71

MANGOLD, E. (1950)
Die Verdauung bei Nutztieren
Berlin: Akademie Verlag

MAREN, T. H., WYNNS, G. C. WISTRAND, P. J. (1993)
Chemical properties of carbonic anhydrase IV, the membrane-bound enzyme.
Mol Pharmacol **44**(4): S. 901-5

- MARTENS, H. (1998)
Beziehungen zwischen Fütterung, Physiologie der Vormägen und der Pathogenese der Dislocatio abomasi.
in: Ätiologie, Pathogenese, Diagnostik, Prognose, Therapie und Prophylaxe der Dislocatio abomasi,
Leipzig, 14.Okt.1998
aus: Proceeding Internationaler Workshop, S. 81 - 101
- MARTENS, H. GÄBEL, G. (1988)
Transport of Na and Cl across the Epithelium of Ruminant Forestomachs - Rumen and Omasum - a Review.
Comparative Biochemistry and Physiology a-Physiology **90**(4): S. 569-575
- MARTENS, H. KASEBIETER, H. (1983)
Invitro Studies on the Influence of Sodium and Potassium-Ions on Magnesium Transport across the Isolated Rumen Mucosa of Sheep.
Zentralblatt Fur Veterinarmedizin - Reihe A **30**(1): S. 1-14
- MARTENS, H. RAYSSIGUIER, Y. (1980)
Magnesium metabolism and hypomagesaemia.
Digestive physiology and metabolism in ruminants. Ruckebus.Y and P. Thivend.
Lancaster, UK: MTP Press Ltd.: 447 - 466
- MCSWEENEY, C. (1986)
An omaso-abomasal cannula used to assess efflux from the omasum of sheep.
Aust Vet J **63**(10): S. 332-4
- MCSWEENEY, C. (1988)
A Comparative-Study of the Anatomy of the Omasum in Domesticated Ruminants.
Australian Veterinary Journal **65**(7): S. 205-207
- MELDRUM, N. U. ROUGHON, F. J. (1933)
J. Physiol. (London) **80**: S. 113-142
- MERTZ, D. P. SCHETTLER, G. (1959)
[Comparative clinical studies on new diuretics; experiences with hydrochlorothiazide.].
Med Klin (Munich) **54**(16): S. 782-4
- MICKE, P., OHSHIMA, M., TAHMASEBPOOR, S., REN, Z. P., OSTMAN, A., PONTEN, F. BOTLING, J. (2006)
Biobanking of fresh frozen tissue: RNA is stable in nonfixed surgical specimens.
Lab Invest **86**(2): S. 202-11
- MOSELEY, R. H., HOGLUND, P., WU, G. D., SILBERG, D. G., HAILA, S., DE LA CHAPELLE, A., HOLMBERG, C. KERE, J. (1999)
Downregulated in adenoma gene encodes a chloride transporter defective in congenital chloride diarrhea.
Am J Physiol Gastrointest Liver Physiol **276**(1): S. G185-192
- MURRAY, M. G., REID, R. S. SUTHERLAND, T. M. (1962)
The rate of passage of digesta from the reticulo-rumen of the sheep.
J. Physiol. Soc. **164**(Proceedings): S. 26

MUTTER, G. L., ZAHRIEH, D., LIU, C., NEUBERG, D., FINKELSTEIN, D., BAKER, H. E. WARRINGTON, J. A. (2004)
Comparison of frozen and RNAlater® solid tissue storage methods for use in RNA expression microarrays.
BMC Genomics **5**: S. 88

N:

NGUYEN, H. V., STUART-TILLEY, A., ALPER, S. L. MELVIN, J. E. (2004)
Cl-/HCO₃⁻ exchange is acetazolamide sensitive and activated by a muscarinic receptor-induced Ca²⁺ (i) increase in salivary acinar cells.
American Journal of Physiology-Gastrointestinal and Liver Physiology **286**(2): S. G312-G320

NICKEL, R., SCHUMMER, A. SEIFERLE, E. (1999)
Lehrbuch der Anatomie der Haustiere - Band II: Eingeweide. -8., vollst. neubearb. Aufl.
Berlin ; Hamburg: Parey- ISBN:3-8263-3179-6

NIEBUHR, V. (2003)
In vitro Untersuchungen zum Bicarbonattransport des Blättermagenepithels von Schafen
Diss., Veterinär-Physiologie, Berlin, Freien Universität, S.102

NOONBERG, S. B., SCOTT, G. K. BENZ, C. C. (1995)
Effect of pH on RNA degradation during guanidinium extraction.
Biotechniques **19**(5): S. 731-3

O:

OYAERT, W. BOUCKAERT, J. H. (1961)
A study of passage of fluid through the sheep's omasum.
Res. vet. Sci. **2**: S. 41 - 52

P:

PARADISO, A. M., COAKLEY, R. D. BOUCHER, R. C. (2003)
Polarized distribution of HCO₃⁻ transport in human normal and cystic fibrosis nasal epithelia.
J Physiol **548**(Pt 1): S. 203-18

PFAFFL, M. W. (2001)
A new mathematical model for relative quantification in real-time RT-PCR.
Nucleic Acids Res **29**(9): S. e45

PFEFFER, E., BERTZBACH, J. LENKEIT, W. (1966)
Untersuchungen über das Verhalten der mineralischen Mengenelemente im Verdauungskanal von Schafen bei Zufütterung von NaCl oder KCl.
Z Tierphysiol Tierernähr Futtermittelkd **22**: S. 115-124

- PFEFFER, E., THOMPSON, A. ARMSTRON.D. (1970)
Studies on Intestinal Digestion in Sheep.
3. Net Movement of Certain Inorganic Elements in Digestive Tract on Rations
Containing Different Proportions of Hay and Rolled Barley.
British Journal of Nutrition **24**(1): S. 197-&
- POPPI, D. P. NORTON, W. (1980)
The validity of the critical size theory for particles leaving the rumen.
J. Agric. Sci. Camb. **94**: S. 275 - 280
- POWELL, D. W. (1981)
Barrier function of epithelia.
Am J Physiol **241**(4): S. G275-88
- PRIEßNITZ, J.-L. (2006)
Der zeitliche Verlauf der Adaptation des Pansenepithels in Abhängigkeit von der
Fütterung am Modell des Schafes
Diss., Veterinär-Physiologie, Berlin, Freie Universität, unveröffentlicht
(in Vorbereitung)

Q:

- QUENTIN, F., CHAMBREY, R., TRINH-TRANG-TAN, M. M., FYSEKIDIS, M., CABBILLAU, M., PAILLARD, M., ARONSON, P. S. ELADARI, D. (2004a)
The Cl-/HCO₃⁻ exchanger pendrin in the rat kidney is regulated in response to chronic alterations in chloride balance.
Am J Physiol Renal Physiol **287**(6): S. F1179-88
- QUENTIN, F., ELADARI, D., FRISCHE, S., CABBILLAU, M., NIELSEN, S., ALPER, S. L., PAILLARD, M. CHAMBREY, R. (2004b)
Regulation of the Cl-/HCO₃⁻ exchanger AE2 in rat thick ascending limb of Henle's loop in response to changes in acid-base and sodium balance.
J Am Soc Nephrol **15**(12): S. 2988-97

R:

- RADONIC, A., THULKE, S., MACKAY, I. M., LANDT, O., SIEGERT, W. NITSCHKE, A. (2004)
Guideline to reference gene selection for quantitative real-time PCR.
Biochem Biophys Res Commun **313**(4): S. 856-62
- REITHMEIER, R. A. (2001)
A membrane metabolon linking carbonic anhydrase with chloride/bicarbonate anion exchangers.
Blood Cells Mol Dis **27**(1): S. 85-9
- ROMERO, M. F., FULTON, C. M. BORON, W. F. (2004)
The SLC4 family of HCO₃⁻ transporters.
Pflugers Arch **447**(5): S. 495-509

S:

- SAMBROOK, J., FRITSCH, D. F. MANIATIS, T. (1989)
Molecular cloning: a laboratory manual. -2nd edition.
New York, USA.: Cold Spring Harbor Press.

- SCHEFE JH, LEHMANN KE, BUSCHMANN IR, UNGER T H., F.-K. (2006)
Quantitative real-time RT-PCR data analysis: current concepts and the novel "gene expression's CT difference" formula.
J Mol Med **8411**(11): S. 901-10
- SCHRÖDER, B., VÖSSING, S. BREVES, G. (1999)
In vitro studies on active calcium absorption from ovine rumen.
Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology **169**(7): S. 487-494
- SCHROEDER, A., MUELLER, O., STOCKER, S., SALOWSKY, R., LEIBER, M., GASSMANN, M., LIGHTFOOT, S., MENZEL, W., GRANZOW, M. RAGG, T. (2006)
The RIN: an RNA integrity number for assigning integrity values to RNA measurements.
BMC Mol Biol **7**(1): S. 3
- SCHULENBURG, A. G. V. D. (2005)
Untersuchung der Adaptation des Pansenepithels im zeitlichen Verlauf
Diss., Veterinär-Physiologie, Berlin, Freie Universität, S.172
- SCHULTHEISS, G. (1995)
Calcium-sensitiver,elektrogener Natriumtransport des Psalterepithels von Schafen
Diss., Veterinär-Physiologie, Berlin, Freie Universität, S.149
- SCHULTHEISS, G. MARTENS, H. (1999)
Ca-sensitive Na transport in sheep omasum.
Am J Physiol **276**(6 Pt 1): S. G1331-44
- SELLIN, J. H. DESOIGNIE, R. (1989)
Regulation of bicarbonate transport in rabbit ileum: pH stat studies.
Am J Physiol **257**(4 Pt 1): S. G607-15
- SHEN, Z., SEYFERT, H. M., LOHRKE, B., SCHNEIDER, F., ZITNAN, R., CHUDY, A., KUHLA, S., HAMMON, H. M., BLUM, J. W., MARTENS, H., HAGEMEISTER, H. VOIGT, J. (2004)
An energy-rich diet causes rumen papillae proliferation associated with more IGF type 1 receptors and increased plasma IGF-1 concentrations in young goats.
J Nutr **134**(1): S. 11-17
- SKLAN, D. HURWITZ, S. (1985)
Movement and absorption of major minerals and water in ovine gastrointestinal tract.
J Dairy Sci **68**(7): S. 1659-66
- SMITH, R. H. (1984)
Microbial Activity in the Omasum.
Proceedings of the Nutrition Society **43**(1): S. 63-68
- SPIEGEL, S., PHILLIPPER, M., ROSSMANN, H., RIEDERER, B., GREGOR, M. SEIDLER, U. (2003)
Independence of apical Cl-/HCO₃⁻ exchange and anion conductance in duodenal HCO₃⁻ secretion.
American Journal of Physiology-Gastrointestinal and Liver Physiology **285**(5): S. G887-G897

- STERLING, D., BROWN, N. J. D., SUPURAN, C. T. CASEY, J. R. (2002)
The functional and physical relationship between the DRA bicarbonate transporter and carbonic anhydrase II.
Am J Physiol Cell Physiol **283**(5): S. C1522-1529
- STERLING, D. CASEY, J. R. (1999)
Transport activity of AE3 chloride/bicarbonate anion-exchange proteins and their regulation by intracellular pH.
Biochemical Journal **344**: S. 221-229
- STERLING, D., REITHMEIER, R. A. CASEY, J. R. (2001)
A transport metabolon. Functional interaction of carbonic anhydrase II and chloride/bicarbonate exchangers.
J Biol Chem **276**(51): S. 47886-94
- STEVENS, C. E. (1964)
Transport of Sodium and Chloride by the Isolated Rumen Epithelium.
Am J Physiol **206**: S. 1099-105
- STOKES, J. B. (1988)
Passive NaCl transport in the flounder urinary bladder: predominance of a cellular pathway.
Am J Physiol **255**(2 Pt 2): S. F229-36
- STUART-TILLEY, A. K., SHMUKLER, B. E., BROWN, D. ALPER, S. L. (1998)
Immunolocalization and tissue-specific splicing of AE2 anion exchanger in mouse kidney.
J Am Soc Nephrol **9**(6): S. 946-59
- SUPURAN, C., SCOZZAFAVA, A. CASINI, A. (2003)
Carbonic anhydrase inhibitors.
Med Res Rev **23**(2): S. 146-89
- SUZUKI, A. G., KAMEYAMA, J., TSUKAMOTO, M., KANEKO, K. SUZUKI, Y. (1993)
Stimulation of Cl⁻ and HCO₃⁻ secretion by intramural cholinergic neurons in guinea pig antrum in vitro.
Am J Physiol **264**(1 Pt 1): S. G118-25

T:

- TANIS, R. J., FERRELL, R. E. TASHIAN, R. E. (1974)
Amino acid sequence of sheep carbonic anhydrase C.
Biochim Biophys Acta **371**(2): S. 534-48
- TASHIAN, R. E., HEWETT-EMMETT, D., CARTER, N. BERGENHEM, N. C. (2000)
Carbonic anhydrase (CA)-related proteins (CA-RPs), and transmembrane proteins with CA or CA-RP domains.
in: EXS,
Basel (CH) Birkäuser Verlag
aus: New Horizons, S. 105-20
- TASHIAN, R. E., KENDALL, A. G. CARTER, N. D. (1980)
Inherited variants of human red cell carbonic anhydrases.
Hemoglobin **4**(5-6): S. 635-51

- TILING, C. (1997)
In vitro Untersuchungen zum Cloridtransport des Blättermgenepithels von Schafen
Diss., Veterinär-Physiologie, Berlin, Freie Universität, S.134
- TOMAS, F. M. POTTER, B. J. (1976)
The site of magnesium absorption from the ruminant stomach.
Br J Nutr **36**(1): S. 37-45
- TOWNE, G. NAGARAJA, T. G. (1990)
Omasal ciliated protozoa in cattle, bison, and sheep.
Appl Environ Microbiol **56**(2): S. 409-12
- TRIPP, B. C., SMITH, K. FERRY, J. G. (2001)
Carbonic anhydrase: new insights for an ancient enzyme.
J Biol Chem **276**(52): S. 48615-8
- TSUGANEZAWA, H., KOBAYASHI, K., IYORI, M., ARAKI, T., KOIZUMI, A., WATANABE, S., KANEKO, A., FUKAO, T., MONKAWA, T., YOSHIDA, T., KIM, D. K., KANAI, Y., ENDOU, H., HAYASHI, M. SARUTA, T. (2001)
A new member of the HCO₃⁻ transporter superfamily is an apical anion exchanger of beta-intercalated cells in the kidney.
J Biol Chem **276**(11): S. 8180-9

U:

- UPPAL, S. K., WOLF, K., KHAHRA, S. S. MARTENS, H. (2003a)
Modulation of Na⁺ transport across isolated rumen epithelium by short-chain fatty acids in hay- and concentrate-fed sheep [In Process Citation].
J Anim Physiol Anim Nutr (Berl) **87**(11-12): S. 380-8
- UPPAL, S. K., WOLF, K. MARTENS, H. (2003b)
The effect of short chain fatty acids on calcium flux rates across isolated rumen epithelium of hay-fed and concentrate-fed sheep.
Journal of Animal Physiology and Animal Nutrition **87**(1-2): S. 12-20
- USSING, H. H. ZERAHN, K. (1951)
Active transport of sodium as the source of electric current in the short-circuited isolated frog skin.
Acta Physiol Scand **23**(2-3): S. 110-27

V:

- VAN SOEST, P. J. (1994)
Function of the ruminant forestomach.
Nutritional ecology of the ruminant. Ithaca und London:
Cornell University Press: 230 - 252
- VANDESOMPELE, J., DE PRETER, K., PATTYN, F., POPPE, B., VAN ROY, N., DE PAEPE, A. SPELEMAN, F. (2002)
Accurate normalization of real-time quantitative RT-PCR data by geometric averaging of multiple internal control genes.
Genome Biol **3**(7): S. RESEARCH0034

- VIDYASAGAR, S., BARMEYER, C., GEIBEL, J., BINDER, H. J. RAJENDRAN, V. M. (2005)
Role of short-chain fatty acids in colonic HCO₃ secretion.
Am J Physiol Gastrointest Liver Physiol **288**(6): S. G1217-1226
- VIDYASAGAR, S., RAJENDRAN, V. M. BINDER, H. J. (2004)
Three distinct mechanisms of HCO₃- secretion in rat distal colon.
Am J Physiol Cell Physiol **287**(3): S. C612-21
- VINCE, J. W., CARLSSON, U. REITHMEIER, R. A. (2000)
Localization of the Cl-/HCO₃- anion exchanger binding site to the amino-terminal region of carbonic anhydrase II.
Biochemistry **39**(44): S. 13344-9

W:

- WANG, Z., SCHULTHEIS, P. J. SHULL, G. E. (1996)
Three N-terminal variants of the AE2 Cl-/HCO₃- exchanger are encoded by mRNAs transcribed from alternative promoters.
J Biol Chem **271**(13): S. 7835-43
- WANG, Z., WANG, T., PETROVIC, S., TUO, B., RIEDERER, B., BARONE, S., LORENZ, J. N., SEIDLER, U., ARONSON, P. S. SOLEIMANI, M. (2005)
Renal and intestinal transport defects in Slc26a6-null mice.
Am J Physiol Cell Physiol **288**(4): S. C957-65
- WESTON, R. H. CANTLE, J. A. (1984)
The movement of undigested plant particle fractions through the stomach of roughage-fed young sheep.
Can. J. Anim. Sci. **64**((Suppl.)): S. 322-323
- WHITE, J. F. IMON, M. A. (1981)
Bicarbonate absorption by in vitro amphibian small intestine.
Am J Physiol **241**(5): S. G389-96
- WINTERHAGER, J. M., STEWART, C. P., HEINTZE, K. PETERSEN, K. U. (1986)
Electroneutral secretion of bicarbonate by guinea pig gallbladder epithelium.
Am J Physiol **250**(4 Pt 1): S. C617-28
- WRIGHT, E. (1955)
Site of phosphorus absorption of the sheep.
Nature **176**(4477): S. 351-2

X:

- XU, J., BARONE, S., PETROVIC, S., WANG, Z., SEIDLER, U., RIEDERER, B., RAMASWAMY, K., DUDEJA, P. K., SHULL, G. E. SOLEIMANI, M. (2003)
Identification of an apical Cl-/HCO₃- exchanger in gastric surface mucous and duodenal villus cells.
Am J Physiol Gastrointest Liver Physiol **285**(6): S. G1225-1234

Y:

YAMAMOTO, Y., KITAMURA, N., YAMADA, J., ANDREN, A. YAMASHITA, T. (1994)
Morphological study of the surface structure of the omasal laminae in cattle, sheep
and goats.
Anat Histol Embryol **23**(2): S. 166-76

YAMAMOTO, Y., KITAMURA, N., YAMADA, J. YAMASHITA, T. (1991a)
Muscular architecture in the omasal laminae of cattle and sheep.
Vet Res Commun **15**(4): S. 249-56

YAMAMOTO, Y., KITAMURA, N., YAMADA, J. YAMASHITA, T. (1991b)
Scanning electron microscopy of vascular architecture in the mucosa of sheep
omasal laminae.
J Vet Med Sci **53**(5): S. 833-8

Z:

ZACHOS, N. C., TSE, M. DONOWITZ, M. (2005)
Molecular physiology of intestinal Na⁺/H⁺ exchange.
Annu Rev Physiol **67**: S. 411-43