



动物营养学报

CHINESE JOURNAL OF ANIMAL NUTRITION

首页 期刊介绍 编委会 编辑部 投稿须知 期刊订阅 广告服务 联系我们 留言与回复

动物营养学报 2013, Vol. 25 Issue (4) :699-704 DOI: 10.3969/j.issn.1006-267x.2013.04.005

综述

最新目录 | 下期目录 | 过刊浏览 | 高级检索

<< Previous Articles | Next Articles

>>

家禽肠道黏膜形态结构及其调控的研究进展

王圣^{1,2}, 李绍钰²

1. 河南农业大学牧医工程学院, 郑州 450002;
2. 河南农业科学院畜牧兽医研究所, 郑州 450002

Research Advances in Intestinal Mucosal Morphology and Its Regulation in Poultry

WANG Sheng^{1,2}, LI Shaoyu²

1. College of Livestock Husbandry and Veterinary Engineering, Henan Agricultural University, Zhengzhou 450002, China;
2. Institute of Animal Science, Henan Academy of Agricultural Sciences, Zhengzhou 450002, China

- 摘要
- 参考文献
- 相关文章

Download: PDF (938KB) HTML (1KB) Export: BibTeX or EndNote (RIS) Supporting Info

摘要 肠道是机体营养物质消化吸收的主要场所,也是机体抵御外界病原微生物的第一道防线。因此,良好的肠道黏膜形态结构及其功能的完整性对保持家禽健康及维持正常生产性能具有重要意义。目前,肠道黏膜的屏障保护功能研究已成热点,研究发现,许多营养素及添加剂对家禽肠道黏膜形态结构和功能都具有积极作用。本文就家禽肠道黏膜形态结构及近年来对其调控的研究进展作以简单综述。

关键词: 家禽 肠道黏膜 形态结构 紧密连接 调控

Abstract: The gut is the primary place for animals to digest and absorb nutrients, and also is the first defense barrier to resist external pathogenic microorganisms. Therefore, it is of great significance to maintain the integrity of intestinal mucosal morphology and functions for poultry health and production. Currently, researches on the functions of the intestinal mucosal barrier have become a hot topic. It was found that some nutrients and additives had positive effects on poultry intestinal mucosal morphology. In this paper, a simple review was made from the recent studies about poultry intestinal mucosal morphology and its regulation.

Keywords: poultry, intestinal mucosal, morphology, tight junction, regulation

收稿日期: 2012-10-17;

基金资助:

河南省农业科学院院专项资金项目;国家现代农业产业技术体系(CARS-42)

通讯作者 李绍钰,研究员,E-mail: lsy9617@yahoo.com.cn

引用本文:

王圣, 李绍钰. 家禽肠道黏膜形态结构及其调控的研究进展[J]. 动物营养学报, 2013, V25(4): 699-704

WANG Sheng, LI Shaoyu. Research Advances in Intestinal Mucosal Morphology and Its Regulation in Poultry[J]. Chinese Journal of Animal Nutrition, 2013, V25(4): 699-704.

链接本文:

http://118.145.16.228/Jweb_dwyy/CN/10.3969/j.issn.1006-267x.2013.04.005 或 http://118.145.16.228/Jweb_dwyy/CN/Y2013/V25/I4/699

[1] LUNQUEIRA L C.组织学与胚胎学[M].高茂英译.北京:科学出版社,2005:177-178.

[2] 徐昌芬,陈永珍.组织胚胎学[M].南京:东南大学出版社,2006:91-92.

[3] NUSRAT A,PARKOS C A,VERKADE P,et al.Tight junctions are membrane microdomains[J].Journal of Cell Science,2000,113(10):1771-1781.

[4] SALLOUM R M,HERSKOWITA K A,SOUBA W W.Dietary modulation of small intestinal glutamine transport in intestinal brush border membrane vesicles of rats[J].Journal Surgical Research,1990,48(6):635-638.

Service

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ Email Alert
- ▶ RSS

作者相关文章

- ▶ 王圣
- ▶ 李绍钰

- [5] 李文立,路静,孙振钧.谷氨酰胺对热应激肉鸡抗氧化性能的影响[J].动物营养学报,2011,23(4):695-702.
- [6] MOURAD F H,DOELL J O,ANDRE E A.L-arginine,nitric oxide,and intestinal secretion:studies in rat jejunum[J].Cutis,1996,39:539-544.
- [7] MOURAD F H,BARADA K A,ABDEL-MALAK N,et al.Interplay between nitric oxide and vasoactive intestinal polypeptide in inducing fluid secretion in rat jejunum[J].The Journal of Physiology,2003,550:863-871.
- [8] 师昆景,谭荣炳,吴灵英.胚胎注射L-精氨酸和L-鸟氨酸对肉仔鸡早期肠道发育的影响[J].中国畜牧杂志,2009,45(1):24-28.
- [9] 刘凤菊,冯于明,王磊.1~3周龄雌性肉仔鸡精氨酸需要量[J].动物营养学报,2011,23(4):571-577.
- [10] 张灿菲.精氨酸对急性热应激鸡肠道粘膜免疫的影响[D].硕士学位论文.武汉:华中农业大学,2008:18-20.
- [11] UNI Z,ZAIGER G,GAL-GGARBER O.Vitamin A deficiency interferes with proliferation and maturation of cells in the chicken small intestine [J].British Poultry Science,2000,41:410-415.
- [12] TAKESHI N,KAZUHITO R,KAYO N.Vitamin A up-regulates expression of bonetype alkaline phosphatase in a rat small intestinal crypt cell line and fetal rat small intestine[J].The Journal of Nutrition,1998,128:1869-1877.
- [13] PETKOVICH M.Regulation of gene expression by vitamin A:the role of nuclear retinoic acid reports[J].Annual Review of Nutrition,1992,12:443-471.
- [14] SWARTZ-BASILE D A,WANG L H,TANG Y Z,et al.Vitamin A deficiency inhibits intestinal adaptation by modulating apoptosis, proliferation, and enterocyte migration[J].American Journal of Physiology-Gastrointestinal and Liver Physiology,2003,285(2):424-432.
- [15] KOTUNIA A,WOLINSKI J,LAUBITZ D,et al.Effect of sodium butyrate on the small intestinal development in neonatal piglets feed by artificial sow [J].Journal of Physiology and Pharmacology,2004,55:59-68.
- [16] JURKOWSKA M,WOLINSKI J,NIZIO A,et al.Effect of sodium butyrate on small intestinal tunica mucosa histology in neonatal piglets[J].Folia Universitatis Agriculture Stetinensis Zootechnica,2003,45:21-24.
- [17] 王继凤,李芙燕,陈耀星.3种饲料添加剂对肉鸡小肠形态结构的影响[J].畜牧兽医学报,2008,39(8):1111-1115.
- [18] LI B T,VAN KESSEL A G,CAINE W R,et al.Small intestinal morphology and bacterial population in ileal digesta and feces of newly weaned pigs receiving a high dietary level of zinc oxide[J].Canadian Journal of Animal Science,2001,81:511-516.
- [19] ROSELLI M,FLANAMORE A,GARAGUSO I,et al.Zinc oxide protects cultured enterocytes from the damage induced by *Escherichia coli*[J].The Journal of Nutrition,2003,133(12):4077-4082.
- [20] 范小兵,杭晓敏.益生菌对急性胰腺炎大鼠肠道微生态及紧密连接的影响[J].中国临床营养杂志,2006,14(2):82-85.
- [21] LAM E K,YU L,WONG H P,et al.Probiotic *Lactobacillus rhamnosus* GG enhances gastric ulcer healing in rats[J].European Journal of Pharmacology,2007,565(1/2/3):171-179.
- [22] SMIRNOV A,TAKO E,FERKET P R.Mucin gene expression and mucin content in the chicken intestinal goblet cells are affected by in ovo feeding of carbohydrates[J].Poultry Science,2006,85:669-673.
- [1] 朱宇旌,于治姣,张勇,李艳,邵彩梅.FoxO转录因子的活性调控及其对骨骼肌生长发育的调节[J].动物营养学报,2013,25(4):677-684
- [2] 王洪荣,季昀.氨基酸的生物活性及其营养调控功能的研究进展[J].动物营养学报,2013,25(3):447-457
- [3] 白世平,张克英,丁雪梅,罗玉衡,白洁.铁稳态调控与肠道沙门氏菌感染的关系[J].动物营养学报,2013,25(3):464-468
- [4] 李晓丽,吕林,解竞静,张丽阳,罗绪刚.锰在鸡肠道中吸收的特点、影响因素及分子机制[J].动物营养学报,2013,25(3):486-493
- [5] 刘海燕,杨振才.水生龟鳖类糖代谢的研究进展[J].动物营养学报,2013,25(2):263-267
- [6] 丁耿芝,孟庆翔.反刍动物干物质采食量预测模型研究进展[J].动物营养学报,2013,25(2):248-255
- [7] 刘莉如,杨开伦,滑静,王晓霞,刘婷婷.抗菌肽对海兰褐仔公鸡小肠黏膜形态结构及免疫活性细胞数量的影响[J].动物营养学报,2013,25(1):190-197
- [8] 蒋义,贾刚,惠明弟,陈小玲,李华,王康平.胰高血糖素样肽-2对断奶仔猪肠上皮紧密连接蛋白相关基因表达的影响[J].动物营养学报,2012,24(9):1785-1792
- [9] 王笑笑,高腾云,秦雯霄.2010年至2011年奶牛养殖中碳减排的研究概况[J].动物营养学报,2012,24(8):1404-1413
- [10] 何余湧,邹伟,刘晓兰,王仁华,陆伟.妊娠后期母猪和仔猪补饲外源精胺对初生和28日龄仔猪肠道形态结构及二糖酶活性的影响[J].动物营养学报,2012,24(8):1429-1437
- [11] 李思明,欧阳玲花,韦启鹏,谷德平,钟小军,刘林秀.维生素D₃的免疫功能及其对家禽免疫细胞和免疫因子的调节 [J].动物营养学报,2012,24(7):1189-1192
- [12] 刘虎传,张敏红,李素霞,冯京海,姜海龙,杨家军,殷瑞娟.益生菌制剂对早期断奶仔猪肠道pH、黏膜形态结构和挥发性脂肪酸含量的影响 [J].动物营养学报,2012,24(7):1329-1335
- [13] 孙效名,吴信,印遇龙,舒绪刚.幼龄动物铁吸收及其调控[J].动物营养学报,2012,24(6):1001-1006
- [14] 唐胜球,梁桂桃,董小英.银杏叶提取物生物学功能及其在家禽养殖中的应用[J].动物营养学报,2012,24(4):606-611
- [15] 汪加明,魏艳红,何柳青,曲湘勇.降低鸡蛋胆固醇含量的调控措施及其机制[J].动物营养学报,2012,24(4):617-623