The combination of two bioactive constituents, lactoferrin and

linolenic acid, inhibits mouse xenograft esophageal tumor

growth by downregulating lithocholyltaurine and inhibiting the

JAK2/STAT3-related pathway

Huiying Li, a,b,c,† Qianqian Yao, a,b,c,† Li Min,d Shengnan Huang, a,b,c Haoming

Wu, a,b,c Huaigu Yang, a,b,c Linlin Fan, a,b,c Jiaqi Wang, a,b,c,* Nan Zheng a,b,c,*

a Laboratory of Quality and Safety Risk Assessment for Dairy Products of

Ministry of Agriculture and Rural Affairs, Institute of Animal Sciences, Chinese

Academy of Agricultural Sciences, Beijing 100193, P. R. China

b Key Laboratory of Quality & Safety Control for Milk and Dairy Products of

Ministry of Agriculture and Rural Affairs, Institute of Animal Sciences, Chinese

Academy of Agricultural Sciences, Beijing 100193, P. R. China

c State Key Laboratory of Animal Nutrition, Institute of Animal Science,

Chinese Academy of Agricultural Sciences, Beijing 100193, P. R. China

d State Key Laboratory of Livestock and Poultry Breeding, Institute of Animal

Science, Guangdong Academy of Agricultural Sciences, Guangzhou 510640, P.

R. China

† Huiying Li and Qianqian Yao should be regarded as the first author

* Nan Zheng and Jiaqi Wang should be regarded as the corresponding author

Corresponding author: Nan Zheng, Jia-Qi Wang, Chinese Academy of Agricultural Sciences, 2#

Yuanmingyuan west road, Haidian district, Beijing, 100193, China

Tel: +86-10-62816069; Fax: +86-10-62897587

E-mail: zhengnan 1980@126.com, jiaqiwang@vip.163.com

S1

Supplementary Table 1. Speical metabolites screened by metabonomics detection

No.	Name of metabolites
1	(2Z)-2-[(2-hydroxyphenyl)methylidene]octanal
2	Tetrahydropersin
3	6-Hydroxyhexadecanoic acid
4	8,11-Heptadecadienal
5	TG(22:6(4Z,7Z,10Z,13Z,16Z,19Z)/22:5(4Z,7Z,10Z,13Z,16Z)/22:6(4Z,7Z,10Z,13Z, 16Z,19Z))
6	CL(8:0/i-21:0/i-21:0/i-22:0)
7	CL(8:0/18:2(9Z,11Z)/i-21:0/i-21:0)
8	1-Oleoylglycerophosphoinositol
9	1-octadecylglycero-3-phosphocholine
10	2-acetyl-1-alkyl-sn-glycero-3-phosphocholine
11	LysoPE(20:1(11Z)/0:0)
12	2-oleoyl-sn-glycero-3-phosphocholine
13	LysoPI(18:0/0:0)
14	LysoPC(P-18:0)
15	Vinaginsenoside R1
16	33-Deoxy-33-hydroperoxyfurohyperforin
17	Adenosine 3',5'-diphosphate
18	Orotidylic acid
19	LysoSM(d18:1)
20	Lithocholyltaurine