

**Protection of  $\alpha$ -amylase from proteolysis by adsorption to feed components *in vitro* and in the porcine small intestine**

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Table S1. Composition of the diet added to the in vitro digestion

Diet Ingredients	g/kg DM
Wheat starch	429
Na-caseinate	50
Whey protein concentrate 80%	100
Whole egg powder	150
Sucrose	50
Cellulose (Arbocel RC fine)	60
Palm oil	60
Sunflower oil	40
Limestone	15
Dicalcium phosphate	13
NaHCO <sub>3</sub>	6
Salt (NaCl)	3
MgO	1
Vitamin trace element mix	2
Celite	20

Table S2. Percentage of  $\alpha$ -amylase activity at 0, 60 and 120 minutes in the presence of different concentrations of trypsin where Control=no trypsin, Medium trypsin=1mg/ml and High trypsin=2mg/ml, and 2mg/mL trypsin is equivalent to 643 p-toluene-sulfonyl-L-arginine methyl ester (TAME) units

Treatments	Time (mins)	Percentage of amylase activity (%)
Control	0	100
	60	83.6
	120	84.8
Medium Trypsin	0	100
	60	74.6
	120	55.7
High Trypsin	0	100
	60	56.7
	120	33.7

Table S3. Protease activity from untreated digesta samples (Raw, n=5) and samples treated with PMSF (PMSF, n=5) from gastrointestinal tract sections SI1-SI4

GIT site	Protease Activity (U/mL)				Site	<i>P</i> -value	
	Raw ± SEM		PMSF ± SEM			Treatment	Treatment* Site
SI1	3.6	1.5	0	0			
SI2	10.5	1.2	0	0	0.001	<0.001	<0.001
SI3	9.5	0.8	0	0			
SI4	3.8	0.7	0	0			