

## Lipid composition analysis of pork floss by using Iatroscan TLC/FID

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**Background** - Iatroscan TLC/FID has been introduced to analyze lipid two decades ago, however, it has not been used in lipid analysis in China. Floss is a traditional processed meat product. However, there is no data on the lipid contents and compositions of meat flosses.

**Objective** - The aim of the present study was to investigate the lipid contents and compositions of the common available flosses in Hangzhou by using Iatroscan TLC/FID.

**Design** - We purchased 4 brand pork flosses from different supermarkets in Hangzhou. The lipids were extracted by chloroform-methanol (2:1, v/v). Lipids were separated by Iatroscan TLC/FID, and identified by comparison with lipid standard, and results were calculated using peak area derived from the chromatograph.

**Outcomes** - Total lipids content of the pork flosses ranged from 9.6% (Fengcheng) to 20.7% (Weixin) ( $P=0.002$ , ANOVA). In the analyzed pork floss samples, more than 90% of lipids were triacylglycerol, content ranged from 8.71% (Fengcheng) to 19.6% (Weixin) ( $P<0.0001$ , ANOVA) (Table, g/100g, Mean  $\pm$  SD,  $n=3$ ).

	Weixin	Beisite	Little chili	Fengcheng	P-value, ANOVA
Total lipid	20.7 $\pm$ 2.1	20.0 $\pm$ 0.6	16.4 $\pm$ 1.8	9.6 $\pm$ 0.2	0.002
Triacylglycerol	19.6 $\pm$ 1.8	18.8 $\pm$ 0.8	15.3 $\pm$ 1.8	8.7 $\pm$ 0.4	<0.0001
Phospholipid	1.1 $\pm$ 0.3	1.2 $\pm$ 0.4	1.2 $\pm$ 0.2	0.9 $\pm$ 0.2	0.653

**Conclusions** - The present results indicated that Iatroscan TLC/FID is powerful tool for food lipid analysis. The contents of total lipid, phospholipids and triacylglycerols in the analyzed pork floss samples varied greatly between brands, which may be caused by how much visible fat remains on the meat during processing, and the different diets of animals.