

## Supplementary tables

**Table 2-1.** Chemical composition of VFA standard

Ingredient composition	Amount (mL)	mM
Acetate (C <sub>2</sub> )	0.35	58.29
Propionate (C <sub>3</sub> )	0.15	20.25
Isobutyrate (C <sub>3</sub> )	0.05	5.68
Butyrate (C <sub>4</sub> )	0.10	11.35
Isovalerate (C <sub>5</sub> )	0.05	4.90
Lactate (C <sub>3</sub> )	0.05	4.90
DH <sub>2</sub> O	100	-

**Table 2-2.** Chemical composition of NDF solution

Ingredient composition	Amount (g/2L DH <sub>2</sub> O)
C <sub>12</sub> H <sub>25</sub> NaO <sub>4</sub> S (Sodium lauryl sulfate)	60.00
C <sub>10</sub> H <sub>14</sub> O <sub>8</sub> N <sub>2</sub> Na <sub>2</sub> ·2H <sub>2</sub> O (Disodium hydrogen EDTA)	37.22
Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> ·10H <sub>2</sub> O (Borax)(Sodium borate decahydrate)	13.62
Na <sub>2</sub> HPO <sub>4</sub> (Disodium hydrogen phosphate anhydrous)	9.12

**Table 2-3.** Chemical composition of ADF solution

Ingredient composition	Amount (g/2L DH <sub>2</sub> O)
C <sub>2</sub> H <sub>12</sub> BrN (Ethyl ammonium bromide)	40
1N H <sub>2</sub> SO <sub>4</sub> (99% Sulfuric acid)	56.1 ml

**Table 2-4.** Chemical composition of sulfanilamide standard

Ingredient composition (%)	Amount
Carbon (C)	41.84%
Hydrogen (H)	4.68%
Nitrogen (N)	16.27%
Oxygen (O)	18.58%
Sulfur (S)	18.62%