



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 1903.17-2016

**National food safety standard -- Food nutritional fortification
substance -- Lactoferrin
(English Translation)**

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1 Scope

This standard applies to the food nutritional fortification substance lactoferrin made from the raw materials of milk and dairy products through separation, sterilization, extraction, refining, and drying.

2.1 Sensory requirements

Sensory requirements shall comply with the requirements of Table 1.

2.2 Physical and chemical indicators

Physiochemical indicators shall comply with the provisions of Table 2.

Appendix A

Test method

A.1 General provisions

Unless otherwise specified in this standard, the reagents used are all analytical pure; the standard titration solution, impurity determination standard solution, and preparation and products shall be prepared in accordance with GB/T 601,

GB/T 602, and GB/T 603; AND the test water shall comply with the provisions of the level 3 water requirements of GB/T 6682. The solution used in the test refers to water solution when it is not indicated of solvent preparation.

A.2.3 Instruments and equipment

High performance liquid chromatograph. equipped with UV detector.

A.2.5 Analysis steps

WEIGH 1 g of sample and 1 g of lactoferrin reference substance; respectively

ADD 10 mL of level 1 water (or sodium chloride solution) to dissolve it; MAKE it pass the 0.45 filter, in order to obtain the sample solution and the control solution. Respectively TAKE 50 µl of each of the two solutions; INJECT it into high performance liquid chromatograph;

A.2.6 Results calculation

The mass fraction of lactoferrin in the total protein (w1) is calculated in accordance with the equation (A.1).

Time / min Level 1 water / % Acetonitrile / % Trifluoroacetic acid solution/%

Appendix B

Reference chromatogram of lactoferrin reference substance

The reference chromatogram of lactoferrin reference is shown in Figure B.1.

Figure B.1 Reference chromatogram of lactoferrin reference substance

Lactoferrin main peak

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