

FACTS ON LIPASE ACTIVITY IN BREAST MILK



Lipase is responsible for fatty acid breakdown (lipolysis).

The freezing process causes the crystallization of milk's lipids, leading to lipolysis.

The extent of lipolysis depends on several maternal factors, including hormones, nutritional status, and the time of milking.

The lipase activity could be inhibited when breast milk is stored below -70°C or pasteurized before freezing.



Heating breast milk above 40°C (to deactivate lipase) is not advised as it may eliminate immune-active factors of breast milk.

The rancid flavor of high-lipase milk will significantly increase when frozen for three months.

References:

- 1 Variations in the rancid-flavor compounds of human breast milk under general frozen-storage conditions; National Institutes of Health.
- 2 Human Milk Storage Information for Home Use for Full-Term Infants; ABM Clinical Protocol.
- 3 The Misconception of High Lipase in Human Milk; RM Children's Health Foundation

