

Introduction

Breast milk is a complex biological fluid that provides infants with both nutritional and non-nutritional factors (*Lonnerdal, 2003*).

These milk components interact synergistically with each other and their environment (the infant's gut) at a biomolecular level with the final result being that breast milk feeds and protects the newborn (*Lopez, 2007*).

The beneficial effects of human milk extend to the feeding of premature infants, because their nutrition support must be designed to compensate for metabolic and gastrointestinal immaturity, immunologic compromise and maternal psychosocial conditions (*Schanler, 2007*).

Human breast milk contains various growth factors, which might participate in many biological functions in infants (*Kobata et al., 2007*).

One of these factor is epidermal growth factor (EGF) which plays an important role in fetal or postnatal intestinal growth and development (*Chun-Ju. and Jane C.2002*).

Epidermal growth factor (EGF), a small polypeptide mitogen, is present in many human body fluids including plasma, saliva, urine, amniotic fluid, and milk. EGF is responsible for proliferation and differentiation of many tissues and stimulation of DNA synthesis in the gastrointestinal tract (*Oslislo et al., 2007*).

Despite the benefits of human milk, infant formulas are often used for medical and socio-economic reasons. Most infant formulas are based on cow milk-derived casein, but whey- or soy-based formulas are also available as alternatives (*American Academy of Pediatrics, 1998*).