

Certificate of Origin

Product: Recombinant Human Epidermal Growth Factor (EGF)

Catalog Numbers: PHG0311, PHG0313, PHG0314, PHG0315

Country of Manufacture: These products are manufactured in the United States

Raw Material Information: The recombinant EGF is produced by bacterial fermentation of *E. coli*. The product contains no materials directly of animal origin. The product does utilize animal derived components in the manufacturing process.

Animal Derived Components: The fermentation feed contains tryptone derived from bovine milk of US or Australian origin. The fermentation media is sterilized at 122.5°C for 45 minutes, 15 psi. EGF is purified by immobilized metal affinity chromatography (non-animal). The leader sequence is cleaved by thrombin derived from human plasma. The serum is tested by the supplier to be negative for HB_sAg and for antibodies to HIV and HCV. The final purification step is by reverse phase chromatography.

For further information contact Technical Support at (800) 955-6288 or techsupport@invitrogen.com.

Donna L. Anderson
Regulatory Affairs
BioSource Cytokines and Signaling
Invitrogen Corporation