

Recombinant Human Endocrine Gland Vascular Endothelial Growth Factor

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. CTK-338
----------------------------	---------------------------------

➤ **Background:**

Human endocrine gland derived vascular endothelial growth factor (EG-VEGF) is selectively expressed in steroidogenic glands and promotes growth of endocrine gland endothelium. The identification of tissue-selective angiogenic factors raises the possibility that other secreted molecules in this class exist. Consistent with such an expression pattern, the human EG-VEGF gene promoter has a potential binding site for steroidogenic factor (SF)-1, a pivotal element for steroidogenic-specific transcription. In the human ovary, the expression of EG-VEGF is temporally and spatially complementary to the expression of VEGF-A, both in the follicular and in the luteal phase, suggesting complementary and coordinated roles of these molecules in ovarian angiogenesis. Also, EG-VEGF expression correlates with vascularity in the polycystic ovary syndrome, a leading cause of infertility.

➤ **Description :**

Recombinant Human EG-VEGF produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 86 amino acids and having a molecular mass of 9605 Dalton.

Recombinant EG-VEGF is purified by proprietary techniques.

➤ **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

➤ **Formulation:**

Recombinant VEGF was lyophilized from a concentrated (1mg/ml) solution with no additives.

➤ **Solubility:**

It is recommended to reconstitute the lyophilized VEGF in sterile 18M-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

➤ **Stability:**

Lyophilized VEGF although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution rHuVEGF should be stored at 4 C between 2-7 days and for future use below -18 C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

➤ **Purity:**

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Anion-exchange FPLC.
- (c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Amino acid sequence:**

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Val-Ile-Thr-Gly.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

The biological activity is determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 1.0-5.0 ng/ml.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of EG-VEGF.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.
2. Analysis by RP-HPLC, using a calibrated solution of EG-VEGF as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.