Erythropoietin (hEPO)

Human, recombinant, filtered through 0.2 µm pore size membrane

Cat. No. 11 120 166 001
250 U (1 ml)

1. What this Product Does

Contents
250 U/ml in PBS and BSA, 1 mg/ml; [purity of BSA > 98%; endotoxin (LAL-test) <1 EU/mg BSA]; filtered through 0.2 µm pore size membrane.

Storage and Stability
Stable at −15 to −25°C. It is recommended to store the solution in aliquots at −15 to −25°C. Repeated freezing and thawing should be avoided.

Application
Erythropoietin (EPO) is a glycoprotein which stimulates proliferation and differentiation of erythroid precursor cells (CFU-E, BFU-E) to more mature erythrocytes. EPO is primarily produced in adult kidney and fetal liver cells. Cells responsive to EPO have been identified in adult bone marrow, fetal liver or adult spleen. In cultures of erythropoietic progenitor cells, EPO stimulates the proliferation and differentiation of these cells to more mature red blood cells (9-14).

Product Characteristics

Primary Structure
The primary structure of recombinant, human EPO is identical to that of natural, human EPO (one polypeptide chain, 166 amino acids) (1-6). The carbohydrate structure of recombinant EPO isolated from CHO cells is very similar to that of natural EPO (7).

Molecular Weight
32,500 Da.

Purity
Recombinant EPO is >98% pure as determined by SDS-PAGE and HPLC; [endotoxin (LAL) <10 EU/mg].

Specific Activity
Specific activity is >100,000 U/mg ([³H]-thymidine incorporation into spleen cells from phenylhydrazine treated mice) (8).

Unit Definition
1 unit is defined as the amount of EPO that is required to produce equivalent [³H]-thymidine incorporation into spleen cells from phenylhydrazine treated mice to that expressed by 1 unit of the WHO-EPO reference standard (2nd IRP).

Species Specificity
Human EPO is effective on mouse and human cells.

Recommended Method of Dilution
Dilute the concentrated EPO solution (250 U/ml) with PBS or culture medium containing 1 mg/ml (0.1%) BSA (or HSA) or 1 – 10% serum.

2. Additional Information on this Product

Preparation
Recombinant, human erythropoietin (EPO) is produced in CHO cells (Chinese hamster ovary) and purified by standard chromatographic techniques.

References

3. Supplementary Information
Changes to Previous Version
Replacement of the wording “sterile”, editorial changes.

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