For life science research only. Not for use in diagnostic procedures.

Erythropoietin, human (hEPO)
recombinant (CHO cells)

Version: 20
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Cat. No. 11 120 166 001 250 U
2.5 µg, 1 ml
Not available in US

Store product at −15 to −25°C.

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1. General Information

1.1. Contents

Vial / Bottle	Cap	Label	Function / Description	Content
1	red	Erythropoietin, human (hEPO)	▪ Solution, filtered through 0.2 µm pore size membrane. ▪ 250 U/ml (2.5 µg) solution in PBS (phosphate buffered saline) and 1 mg/ml BSA (bovine serum albumin). *Purity of BSA: >98%, endotoxin (LAL): <1 EU/mg BSA.*	1 bottle, 1 ml

1.2. Storage and Stability

Storage Conditions (Product)

The product is shipped on dry ice.
When stored at −15 to −25°C, the product is stable through the expiration date printed on the label.

Vial / Bottle	Cap	Label	Storage
1	red	Erythropoietin, human (hEPO)	Store in aliquots at −15 to −25°C. ⚠ ***Avoid repeated freezing and thawing.***

1.3. Application

Cells responsive to Erythropoietin (hEPO) 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.

2. How to Use this Product

2.1. Before you Begin

General Considerations

Primary structure

The primary structure of recombinant, human EPO is identical to that of natural, human EPO (one polypeptide chain, 166 amino acids).

The carbohydrate structure of recombinant EPO isolated from CHO cells is very similar to that of natural EPO.

Working Solution

Dilute the concentrated Erythropoietin solution (250 U/ml) with PBS or culture medium containing 1 mg/ml (0.1%) BSA or HSA (human serum albumin), or 1 to 10% serum.

2.2. Parameters

Molecular Weight

32,500 Da

Purity

>98% pure as determined by SDS-PAGE and HPLC.
Endotoxin level: <10 EU/mg (LAL)

Specific Activity

>1 × 10^5 U/mg
[^{3}H]-thymidine incorporation into spleen cells from phenylhydrazine-treated mice.

Specificity

Human Erythropoietin is effective on mouse and human cells.

Unit Definition

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

3. Additional Information on this Product

3.1. Test Principle

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.

Preparation

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

3.2. Quality Control

For lot-specific certificates of analysis, see section **Contact and Support**.

4. Supplementary Information

4.1. Changes to previous version

Layout changes.
Editorial changes.

4.2. Trademarks

All product names and trademarks are the property of their respective owners.

4.3. License Disclaimer

For patent license limitations for individual products please refer to:
List of biochemical reagent products.

4.4. Regulatory Disclaimer

For life science research only. Not for use in diagnostic procedures.

4.5. Safety Data Sheet

Please follow the instructions in the Safety Data Sheet (SDS).

4.6. Contact and Support

To ask questions, solve problems, suggest enhancements or report new applications, please visit our **Online Technical Support Site**.

To call, write, fax, or email us, visit **sigma-aldrich.com**, and select your home country. Country-specific contact information will be displayed.

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