gibco
by life technologies

# Recombinant Human Vascular Endothelial Cell Growth Factor (VEGF)

**Publication Part Number** MAN0003577 **Rev.** 2.00

| **Catalog Number:** | PHC9394 | PHC9391 | PHC9393 |
|---|---|---|---|
| **Quantity:** | 10 µg | 100 µg | 1 mg |

| | |
|---|---|
| **Lot Number:** | See product label. |
| **Molecular Weight:** | ~40 kDa (homodimer), 165 amino acid residues/subunit. Migrates as a diffuse band on SDS–PAGE due to heterogeneous glycosylation. |
| **Purity:** | ≥95% as determined by SDS–PAGE analysis. |
| **Amino Acid Sequence:** | APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGQH IGEMSFLQHN KCECRPKKDR ARQENPCGPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC DKPRR |
| **Biological Activity:** | $ED_{50}$ range = ≤1 ng/mL (Specific Activity: ≥1.7 × $10^5$ units/mg), determined by the dose dependent proliferation of human umbilical vein cells (HUVEC). Optimal concentration for individual application should be determined by a dose response assay. |
| **Formulation:** | Lyophilized, carrier free. |
| **Sterility:** | Filtered prior to lyophilization through a 0.22 micron sterile filter. |
| **Endotoxin:** | <0.1 ng/µg |
| **Production:** | Recombinant Human VEGF is expressed in Human Embryonic Kidney 293 cells and purified via sequential chromatography. |
| **Reconstitution Recommendation:** | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute lyophilized recombinant human VEGF in sterile, distilled water or appropriate buffered solution containing 0.1% BSA to regain full activity. These stock solutions should be apportioned into working aliquots and stored at ≤ –20°C. Further dilutions should be made in buffered solution containing a carrier protein such as PBS + 0.1% BSA. |
| **Suggested Working Dilutions:** | The optimal concentration should be determined for each specific application. |
| **Storage:** | Store this lyophilized preparation at 2°C to 8°C, preferably desiccated. Upon reconstitution, apportion into working aliquots and store at ≤ –20°C. Avoid repeated freeze/thaw cycles. |
| **Expiration Date:** | Expires one year from date of receipt when stored as instructed. |
| **References:** | Abraham, J.A., J. Whang, A. Tumolo, A. Mergia, J. Friedman, D. Gospodarowicz, and J.C. Fiddes (1986) Human basic fibroblast growth factor: nucleotide sequence and genomic organization. EMBO J. 5:2523–2528.<br>Seddon, A., M. Decker, T. Muller, D. Armellino, I. Kovesdi, Y. Gluzman, and P. Bohlen (1991) Structure/activity relationships in basic FGF. Ann. N.Y. Acad. Sci. 638:98–105.<br>Bruno, E., R.J. Cooper, E.L. Wilson, J.L. Gabrilove, and R. Hoffman (1993) Basic fibroblast growth factor promotes the proliferation of human megakaryocyte progenitor cells. Blood 82:430–435.<br>Kitchens, D.L., E. Snyder, and D. Gottlieb (1994) FGF and EGF are mitogens for immortalized neural progenitors. J. Neurobiol. 25:797–807.<br>Izevbigie, E.B., J.S. Gutkind, and P.E. Ray (2000) Angiotensin II and basic fibroblast growth factor mitogenic pathways in human fetal mesangial cells. Pediatr. Res. 47:614–621.<br>Izevbigie, E.B., J.S. Gutkind, and P.E. Ray (2000) Isoproterenol inhibits fibroblast growth factor–2–induced growth of renal epithelial cells. Pediatr. Nephrol. 14:726–734. |

## Explanation of Symbols

The symbols present on the product label are explained below:

| Symbol | Description |
|---|---|
| REF | Catalog Number |
| RUO | Research Use Only |
|  | Use by |
|  | Manufacturer |
| [–] | Without, does not contain |
|  | Protect from light |
|  | Directs the user to consult instructions for use (IFU), accompanying the product. |

| Symbol | Description |
|---|---|
| LOT | Batch code |
| IVD | In vitro diagnostic medical device |
|  | Temperature limitation |
| EC REP | European Community authorized representative |
| [+] | With, contains |
|  | Consult accompanying documents |

## Limited Use Label License: Research Use Only

The purchase of this product conveys to the purchaser the limited, non-transferable right to use the purchased amount of the product only to perform internal research for the sole benefit of the purchaser. No right to resell this product or any of its components is conveyed expressly, by implication, or by estoppel. This product is for internal research purposes only and is not for use in commercial applications of any kind, including, without limitation, quality control and commercial services such as reporting the results of purchaser's activities for a fee or other form of consideration. For information on obtaining additional rights, please contact **outlicensing@lifetech.com** or Out Licensing, Life Technologies, 5791 Van Allen Way, Carlsbad, California 92008.

**For Research Use Only. Caution: Not for human or animal therapeutic or diagnostic use.**

Manufactured under ISO 13485 Quality Standard

Manufacturing site: 7335 Executive Way | Frederick, MD 21704 | Toll Free in USA 800.955.6288

.



**For support visit** www.lifetechnologies.com/support or email techsupport@lifetech.com

www.lifetechnologies.com

Revision Date 01 July 2011

life technologies™