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| Data Sheet | | |
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| Product Information | | |
| **Product Name** | **:** | **Recombinant Human Vascular endothelial growth factor 165 (rhVEGF165)** |
| **Synonyms** | **:** | VEGF, vascular permeability factor (VPF) |
| **Description** | **:** | The protein is a signal protein produced by cells that stimulates [vasculogenesis](https://en.wikipedia.org/wiki/Vasculogenesis) and [angiogenesis](https://en.wikipedia.org/wiki/Angiogenesis). It is part of the system that restores the oxygen supply to tissues when blood circulation is inadequate. VEGF's normal function is to create new blood vessels during [embryonic development](https://en.wikipedia.org/wiki/Embryonic_development), new blood vessels after injury, muscle following exercise, and neaw vessels ([collateral circulation](https://en.wikipedia.org/wiki/Collateral_circulation)) to bypass blocked vessels. When VEGF is overexpressed, it can contribute to disease. Solid cancers cannot grow beyond a limited size without an adequate blood supply; cancers that can express VEGF are able to grow and metastasize. (Ref. From Wikipedia) |
| **NCBI Accession No.** |  | NM\_001171626.1 |
| **Amino acid sequence** | **:** | **MAPMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEYIFKPSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKKDRARQENPCGPCSERRKHLFVQDPQTCKCSCKNTDSRCKARQLELNERTCRCDKPRR\*** |
| **Molecular Mass** | **:** | 19.26 kDa (167 aa) |
| **Protein Tags** | **:** | No tagging |
| **Source** | **:** | *E. coli.* |
| **Cat. No.** | **:** | JW-H014-0010, JW-H014-0025, JW-H014-0050, JW-H014-0100, JW-H014-0250, JW-H014-0500, JW-H014-1000 |
| **Storage** | **:** | Should be at ≤ -70 ℃ as undiluted aliquots of handy size. Avoid repeated freezing and thawing. |
| **Cross Reactivity** | **:** | Human, Mouse, Pig, Rabbit, Rat, Sheep, Chicken |

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| Quality Control | | | |
| **Test items** |  | **Specifications** | |
| **Appearance** | **:** | Clear, colorless liquid | |
| **Purity** | **:** | Greater than 98 % by RP-HPLC and SDS-PAGE | |
| **Specificity** | **:** | Using Western blot, detection |  |
| **Concentration** | **:** | 0.1 mg/㎖, Bradford method |
| **Biological Activity** | **:** | Determined by proliferation of HUVEC indicator cells.  The ED50 is < 6.0ng/ml, corresponding to a specific activity of <1.6 × 105 U/mg |
| **Endotoxin** | **:** | Less than 0.2 EU/㎍ as determined by the LAL method | |
| **Formulation** | **:** | PBS, 5% glycerol (pH 8.0) without preservative or carrier proteins. | |
| **Stability** | **:** | Stable for up to 12 months at -70 ℃. Stable for a month at 4 ℃. | |
| **Sterility** | **:** | Sterilized through a 0.2 ㎛ membrane filter and packaged aseptically. Culture for 2 weeks, no growth | |
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