

## Recombinant Human Insulin-like Growth Factor-1

### 重组人 IGF-1

#### 产品简介:

The insulin-like growth factors (IGFs) belongs to the insulin gene family, are mitogenic polypeptide growth factors that stimulate the proliferation and survival of various cells including muscle, bone, and cartilage tissue in vitro. The IGFs are similar by structure and function to insulin, but have a much higher growth-promoting activity than insulin. IGF-1 is produced primarily by the liver as an endocrine hormone as well as in target tissues in a paracrine/autocrine fashion. The production of IGF-1 is stimulated by growth hormone (GH) and can be retarded by undernutrition, growth hormone insensitivity, lack of growth hormone receptors, or failures of the downstream signaling pathway post GH receptor including SHP2 and STAT5B. Recombinant human IGF-1 are globular proteins containing 70Aa and 3 intra-molecular disulfide bonds. Mature human IGF-1 shares 94% and 96% Aa sequence identity with mouse and rat IGF-1, respectively, and exhibits cross-species activity.

#### 分子量:

Approximately 7.6kDa, a single non-glycosylated polypeptide chain containing 70 amino acids.

#### 纯度:

> 97% by SDS-PAGE and HPLC analyses.

#### 内毒素:

Less than 1EU/ $\mu$ g of rHuIGF-1 as determined by LAL method.

#### 生物学活性:

Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using serum free human MCF-7 cells is less than 2ng/ml, corresponding to a specific activity of  $> 5.0 \times 10^5$  IU/mg.

#### 来源:

Escherichia coli.

#### 外观:

Sterile Filtered White lyophilized (freeze-dried) powder.

#### 使用说明:

This material is offered for laboratory or further evaluation purposes. NOT FOR HUMAN USE.

#### 储存:

This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion there constituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze/thaw cycles.

溶液配置:

Lyophilized from a 0.2  $\mu\text{m}$  filtered concentrated solution in PBS, pH 7.4.

补充:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at  $\leq -20^{\circ}\text{C}$ . Further dilutions should be made in appropriate buffered solutions.

氨基酸序列:

GPETLCGAELVDALQFVCGDRGFYFNKPTGYGSSRRAPQTGIVDECCFRSCDLRRLEMYCAP  
LKPAKSA