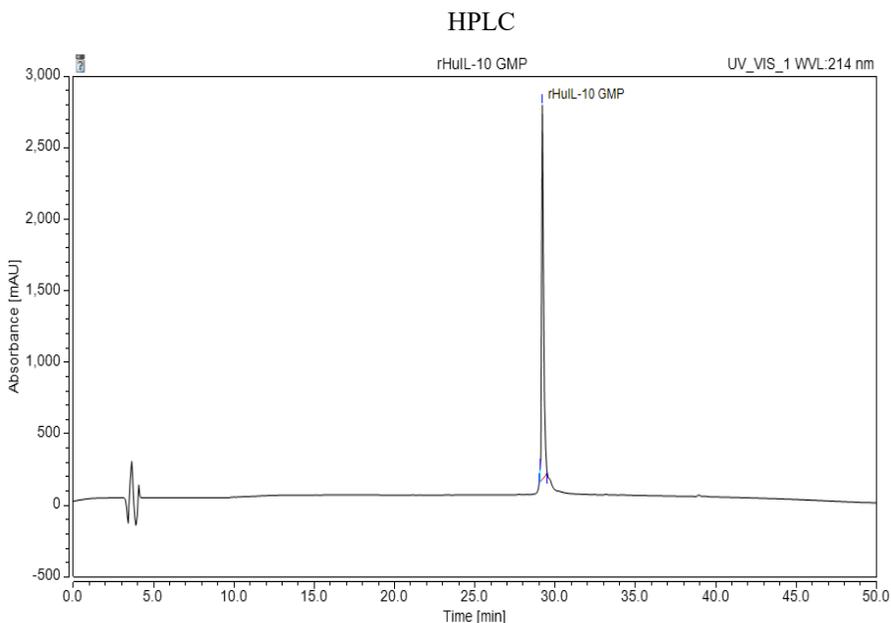
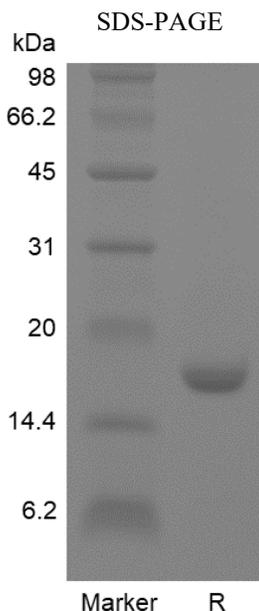


<b>Catalog Number:</b>	GMP-101-10
<b>Source:</b>	<i>Escherichia coli</i>
<b>Molecular Weight:</b>	Approximately 18.6 kDa, a single non-glycosylated polypeptide chain containing 160 amino acids.
<b>Size:</b>	5 µg/100 µg/1 mg
<b>Sequence:</b>	SPGQGTQSEN SCTHFPGNLP NMLRDLRDAF SRVKTFFQMK DQLDNLLLKE SLLEDFKGYL GCQALSEMIQ FYLEEVPQA ENQDPDIKAH VNSLGENLKT LRLRLRRCHR FLPCENKSKA VEQVKNAFNK LQEKGIYKAM SEFDIFINYI EAYMTMKIRN
<b>Purity:</b>	> 95% by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine MC/9-2 cells is less than 1 ng/mL, corresponding to a specific activity of > 1.0 × 10 <sup>6</sup> U/mg.
<b>Physical Appearance:</b>	Sterile filtered white lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, 0.02% Tween-20, pH 6.0.
<b>Endotoxin:</b>	Less than 0.01 EU/µg of rHuIL-10 GMP as determined by LAL method.
<b>Host Cell Protein:</b>	Less than 0.10% when tested by ELISA.
<b>Reconstitution:</b>	Prior to opening, it is recommended to centrifuge the vial briefly to bring the contents down the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. If animal-origin-free condition is expected in your product, then sterile distilled water is recommended. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● A minimum of 12 months from date of receipt, when stored at ≤ -20 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li><li>● Refer to lot-specific CoA for the Expiry Date.</li></ul>
<b>Usage:</b>	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory, or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>
<b>Quality Statement:</b>	<b>The manufacturing and testing of these products comply with ICH Q7 guidelines.</b>



## Background:

Interleukin-10 (IL-10), also known as cytokine synthesis inhibitory factor (CSIF), is the charter member of the IL-10 family of  $\alpha$ -helical cytokines that also includes IL-19, IL-20, IL-22, IL-24, and IL-26/AK155. IL-10 is secreted by many activated hematopoietic cell types as well as hepatic stellate cells, keratinocytes, and placental cytotrophoblasts. Whereas human IL-10 is active on mouse cells, mouse IL-10 does not act on human cells. IL-10 is a 178 amino acid molecule that contains two intrachain disulfide bridges and is expressed as a 36 kDa noncovalently associated homodimer. The IL-10 dimer binds to two IL-10 R $\alpha$ /IL-10R1 chains, resulting in recruitment of two IL-10 R $\beta$ /IL-10R2 chains and activation of a signaling cascade involving JAK1, TYK2, and STAT3. IL-10R $\beta$  does not bind IL-10 by itself but is required for signal transduction. IL-10 is a critical molecule in the control of viral infections and allergic and autoimmune inflammation. It promotes phagocytic uptake and Th2 responses but suppresses antigen presentation and Th1 proinflammatory responses.

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