

PRODUCT INFORMATION

## **Croyez GMP® Activin A, Human**

v. 230901

| Catalog number      | C01119-GMP-1000  |
|---------------------|--|
| Package             | 1 mg   |
| Description         | Activin and Inhibin are members of the TGF-beta superfamily of cytokines and are involved in a wide range of biological processes including tissue morphogenesis and repair, fibrosis, inflammation, neural development, hematopoiesis, reproductive system function, and carcinogenesis. Activin A is strongly expressed in wounded skin, and overexpression of Activin A in epidermis of transgenic mice improves wound healing and enhances scar formation. Activin A also regulates the morphogenesis of branching organs such as the prostate, lung, and kidney. There is also evidence showed that lack of Activin A during development results in neural developmental defects. |
| Expression System   | Escherichia coli   |
| Species of Origin   | Human  |
| Affinity Tag        | His Tag (C-term)   |
| Sequence            | MGLECDGKVNICCKKQFFVSFKDIGWNDWIIAPSGYHANYCEGECPSHIAGTS<br>GSSLSFHSTVINHYRMRGHSPFANLKSCCVPTKLRPMSMLYYDDGQNIIKKDIQ<br>NMIVEECGCS with polyhistidine tag at the C-terminus   |
| Endotoxin level     | <0.1 EU per 1 µg of the protein by the LAL method.   |
| Activity            | Measure by its ability to inhibit the proliferation of mouse MPC-11 cells. The ED $_{50}$ for this effect is <10 ng/mL. The specific activity of recombinant human Activin A is approximately >1.0 x $10^3$ IU/mg.   |
| Purity              | >95% as determined by SDS-PAGE analysis.   |
| Mycoplasma          | Not detected   |
| Form                | Lyophilized  |
| Storage Buffer      | Lyophilized from a 0.2 $\mu m$ filtered solution of PBS containing 0.1% sarkosyl, pH 8.0.  |
| Reconstitution      | It is recommended to reconstitute the lyophilized protein in sterile H <sub>2</sub> O to a concentration not less than 0.5 mg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.  |
| Stability & Storage | This product is stable after storage at:   |



|               | <ul> <li>-20°C for 12 months in lyophilized state from date of receipt.</li> <li>-20°C or -80°C for 1 month under sterile conditions after reconstitution.</li> <li>Avoid repeated freeze/thaw cycles.</li> </ul>  |
|---------------|--|
| Specification | Croyez GMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP-certified facility. The processes include:  • Animal-free reagent and laboratory  • Manufactured and tested under GMP guideline  |
|               | <ul> <li>Testing and traceability of raw material</li> <li>Records of the maintenance and equipment calibration</li> <li>Personnel training records</li> <li>Batch-to-batch consistency</li> <li>Documentation of QA control and process changes</li> <li>Manufactured and tested under an ISO 13485:2016 certified quality management system</li> </ul> |
|               | Stability monitor of product shelf-life  |
| Reference     | <ol> <li>Bloise E. et al. (2019) <i>Physiol Rev.</i> 99,1: 739-780.</li> <li>Gressner OA. (2011) <i>Vitam Horm.</i> 85: 59-77.</li> <li>de Kretser DM. et al. (2012) <i>Mol Cell Endocrinol.</i> 359,1-2: 101-6.</li> </ol>  |
|               | kDa  75- 60- 45- 35- 25-  17- 11-  |

SDS-PAGE analysis of Croyez GMP® Activin A, Human

For Research Use Only. Not for use in diagnostic or therapeutic procedures.