

# Recombinant Swine IL21

**Cat. No.** IL21-103S    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| <b>Product Overview</b> | Swine IL-21 was produced in yeast and therefore does not have endotoxin, is naturally folded, and post-translationally modified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Species</b>          | Pig                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | Yeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Description</b>      | IL-21 is a member of the type I cytokine family, which includes IL-2 and IL-15. IL-21 signals through the common gamma-chain and a unique IL-21 receptor. The IL-21 receptor is expressed in cells lymphoid-lineage and regulates the proliferation and differentiation of T and B lymphocytes. Studies suggest that IL-21 is a key component of CD4 T cell help that is required for maintaining the CD8+ T cell responses and inducing B cell antibody response. IL-21 also promotes the development of Th17 and Tfh cells, modulates the cytotoxic activity and survival of NK and CD8+ T cells, and suppresses the maturation of dendritic cells. It is also implicated in the development of autoimmune disease and has antitumor activity. |
| <b>Form</b>             | Lyophilized without carrier protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Molecular Mass</b>   | Swine IL-21 has a predicted molecular weight of 15.0 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>AA Sequence</b>      | HKSSFQGGQDR LLIRLRQLID TVDQLKNYVH DLDPELLPAP EDVQRHCEQS<br>AFSCFQKVEL KSANTGDNEK IINVLIKQLK RKLPTNAGR RQKHGLTCPT<br>CDSYEKKPIK EFLERLKS LI QKMIHQHLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>         | >95% as visualized by SDS-PAGE analysis.                                                                                                                                                       |
| <b>Applications</b>   | The Swine IL-21 protein can be used in cell culture, as an IL-21 ELISA Standard, and as a Western Blot Control.                                                                                |
| <b>Storage</b>        | Stable for up to twelve months from date of receipt at -20°C. Stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. Avoid repeated freeze/thaw cycles. |
| <b>Reconstitution</b> | Reconstitute with sterile phosphate-buffered saline containing at least 0.1% carrier protein.                                                                                                  |

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