Interleukin-15 (IL-15), a 12.5 kDa human, recombinant protein purified from E. coli, was initially isolated from the simian kidney epithelial cell line CV1/EBNA. Recombinant human IL-15 is produced from a DNA sequence encoding the 162 amino acid precursor protein with a 48 amino acid signal peptide that is cleaved to yield a 114 amino acid mature protein.

IL-15 mRNA is found in many cell types including peripheral blood mononuclear cells, placenta, and skeletal muscle. It is produced by epithelial cells and monocytes. Human IL-15 shares sequence identity with simian (~97%) and murine (~73%). IL-15 competes for binding sites with IL-2, as both IL-2 and IL-15 stimulate the growth of cells through the IL-2 receptor. IL-15 shares many of the same biological properties of IL-2, including stimulation of mouse CTLL-2 cells.

This product is supplied a lyophilized powder from a 0.2 μm filtered solution of phosphate buffered saline, pH 7.4, containing 50 μg bovine serum albumin per 1 μg as a carrier protein.

The specific activity of Recombinant Human IL-15 is ~4.5 × 10^5 U/μg, which is calibrated against recombinant human IL-15 WHO International Standard (NIBSC code: 95/554). It is measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells.

Purity: >97% (SDS-PAGE, silver stain)

Endotoxin: <1.0 EU (endotoxin units) per 1 μg of the cytokine (LAL method)