

Recombinant Human IL-9 protein(His Tag)

Catalog Number: PKSH034101

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

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| Species | Human |
| Source | E.coli-derived Human IL-9 protein Gln 19-Ile 144, with an N-terminal His |
| Calculated MW | 14.9 kDa |
| Observed MW | 19 kDa |
| Accession | P15248 |
| Bio-activity | Measure by its ability to induce proliferation in MO7e cells. The ED ₅₀ for this effect is <0.25 ng/mL. The specific activity of recombinant human IL-9 is approximately >5 x10 ⁶ IU/ mg. |

Properties

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| Purity | > 98 % as determined by reducing SDS-PAGE. |
| Endotoxin | < 0.01 EU per µg of the protein as determined by the LAL method. |
| Storage | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| Shipping | This product is provided as lyophilized powder which is shipped with ice packs. |
| Formulation | Lyophilized from sterile PBS, pH 8.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual. |
| Reconstitution | Please refer to the printed manual for detailed information. |

Background

Interleukin-9 (IL-9) is a secreted protein that belongs to the IL-7/IL-9 family. Mature mouse IL-9 shares 57% and 74% amino acid sequence identity with human and rat IL-9, respectively. IL-9 supports IL-2 independent and IL-4 independent growth of helper T-cells. IL-9 stimulates cell proliferation and prevents apoptosis. It functions through the IL-9 receptor (IL-9R), which activates different signal transducer and activator (STAT) proteins and thus connects this cytokine to various biological processes. IL-9 has been identified as a candidate gene for asthma. IL-9 is a determining factor in the pathogenesis of bronchial hyperresponsiveness.