Datasheet for ABIN1019716

IL-3 Protein (AA 20-152)

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Overview

Quantity:	100 µg
Target:	IL-3
Protein Characteristics:	AA 20-152
Origin:	Human
Source:	Tobacco (Nicotiana benthamiana)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Western Blotting (WB), Cell Culture (CC)

Product Details

Sequence:	HHHHHHHHAP MTQTTSLKTS WVNCSNMIDE IITHLKQPPL PLLDFNNLNG EDQDILMENN LRRPNLEAFN RAVKSLQNAS AIESILKNLL PCLPLATAAP TRHPIHIKDG DWNEFRRKLT FYLKTLENAQ AQQTTLSLAI F
Specificity:	Serological Identification: The protein was electrophoresed under reducing condition on a 15 % SDS-polyacrylamide gel, transferred by electroblotting to a NC membrane and visualized by immune-detection with specific IL-3 antibody.
Characteristics:	Molecular Formula: C718H1132N210O207S5 Isoelectric Point: 7.34 Extinction Coefficient: E 0.1 % (1g/L) = 0.780 (A 280 nm)
Endotoxin Level:	< 0.04 EU/µg protein (LAL method)

Target Details

Target:	IL-3
Alternative Name:	Interleukin-3 (IL-3 Products)
Background:	Synonyms: Hematopoietic growth factor Mast cell growth factor (MCGF), Multipotential colony-stimulating factor (MULTI-CSF) IL-3 is a potent growth factor involved in a variety of cell activities such as cell growth, differentiation and apoptosis. It takes part of several biological responses such as proliferation, and differentiation of a broad range of hematopoietic progenitor cells into erythrocytes, granulocytes, monocytes, megakaryocytic and mast cells. IL-3 also induces the production of several enzymes involved in cellular metabolism, differentiation, and DNA/RNA metabolism. IL-3 is produced by activated T-lymphocytes, keratinocytes, NK-cells, mast cells, endothelial cells and monocytes. The biological activity of IL-3 is mediated through specific cell surface receptor that is composed of alpha and beta subunits. Alpha subunit is responsible for the binding and beta subunit transmits signals across the plasma membrane, il-3 is known to activate three signalling pathways: JAK/STAT, RAS/RAF/MAP kinase, and the PI-3kinase/PKB pathways. IL-3 is also implicated in the pathogenesis of several diseases such as asthma, athero sclerosis and multiple sclerosis. Recombinant protein has been widely used in clinical practice, in the treatment of leukemia and as therapy for patients with bone marrow deficiency function.
Molecular Weight:	16.2 kDa
UniProt:	P08700
Pathways:	JAK-STAT Signaling, Regulation of Carbohydrate Metabolic Process, Autophagy

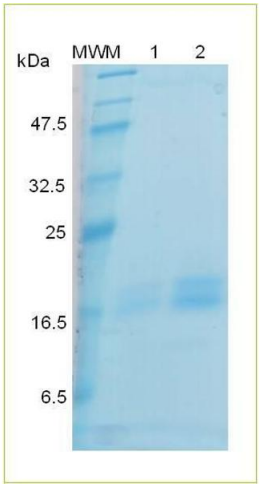
Application Details

Comment:	rhuman Interleukin-3 is a glycosylated polypeptide chain containing 133 amino acids (20 - 152 of P08700 IL3_HUMAN) and a His-tag at the N-terminal end. It has a predicted molecular mass of 16.2 KDa, however as result of glycosylation, the recombinant protein could migrate with an apparent molecular mass of 18-22 kDa in SDSPAGE. Human recombinant protein expressed in Nicotiana benthamiana. Recombinant human Interleukin-3 contains a 8-His-tag at the N-terminal end, is produced by transient expression in non-transgenic plants and is purified by sequential chromatography (FPLC). This product contains no animal-derived components or impurities. Animal free product. The protein was resolved by SDS polyacrylamide gel electrophoresis and the gel was stained with coomassie blue.
Restrictions:	For Research Use only

Handling

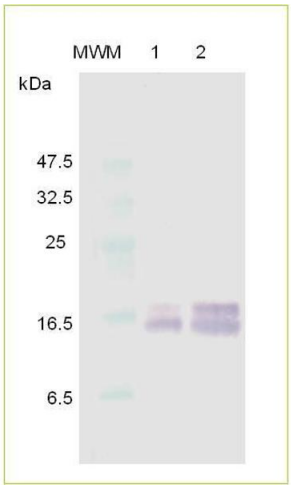
Format:	Lyophilized
Reconstitution:	Lyophilized protein should be reconstituted in water to a concentration of 50 ng/µL. Optimal concentration should be determined for specific application and cell lines. Optimal concentration should be determined for specific application and cell lines.
Buffer:	PBS 1X buffer pH 7.4
Storage:	4 °C

Images



SDS-PAGE

Image 1. SDS-PAGE analysis of recombinant IL-3. Samples were loaded in 15 % SDS-polyacrylamide gel and stained with Coomassie blue. Lane MWM: Molecular weight marker (kDa), lane 1: contains 0.15 µg and lane 2: contains 0.3 µg of recombinant IL-3.



Western Blotting

Image 2. Western Blot analysis of recombinant IL-3. Lane MWM: Molecular weight marker (kDa), lane 1: contains 0.15 µg and lane 2: contains 0.3 µg of recombinant IL-3.