

IL-12 receptor beta 1 Active Protein | IL12RB1 active protein

Human IL-12 receptor beta 1 Recombinant

CATALOG #	HOST
AAA76114	N/A (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)

PRODUCT SYNONYMS

IL-12 receptor beta 1; Human IL-12 receptor beta 1 Recombinant; IL-12Rb1; IL12rb1; IL12RB1 active protein

PRODUCT SPECIFICATIONS

Host	N/A (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)
Purity/Purification	>95%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant Human Interleukin-12 receptor beta was lyophilized from a 0.2 um filtered PBS solution pH 7.4.
Sequence	MEPLVTWVVP LLFLFLLSRQ GAACRTSECC FQDPYPAD SGASGPRDL RCYRISSDRY ECSWQYEGPT AGVSHFLRCC LSSGRCCYFA AGSATRLQFS DQAGVSVLYT VTLWWESWAR NQTEKSPEVT LQLYNSVKYE PPLGDIKYSK LAGQLRMEWE TPDNQVGAEV QFRHRTSPSS WKLGDGCPQD DDTESCLCPL EMNVAQEFQL RRRQLGSQGS SWSKWSSPVC VPPENPPQPQ VRFSVEQLGQ DGRRLTLKE QPTQLELPEG CQGLAPGTEV TYRLQLHMLS CPCRKAKATRT LHLGKMPYLS GAAYNVAVIS SNQFGPGLNQ TWHIPADTHT EPVALNISVG TNGTTMYWPA RAQSMTYCIE WQPVGQDGG L ATCSLTAPQD PDPAGMATYS WSRESGAMGQ EKCYYITIFA SAHPEKLT LW STVLSTYHFG GNASAAGTPH HVSVKNHSLD SVSVDWAPSL LSTCPGVLKE YVVRCDSDS KQVSEHPVQP TETQVTL SGL RAGVAYTVQV RADTAWLRGV WSQPQRF SIE VQVSDWLIFF ASLGSFSLIL LVGVLYGLGL NRAARHL CPP LPTPCASSAI EFPGGKETWQ WINPVDFQEE ASLQEALVVE MSWDKGERTE PLEKTELPEG APELALDTEL SLEDGDRCKA KM
Sequence Length	662
Source	DNA sequence encoding extracellular domain of Human IL-12RB1 fused to a C-terminal polyHis tag was expressed in HEK cells.
Molecular Weight	Recombinant Human IL12RB1 is a monomer consisting of 528 amino acid residue subunits, and migrates as an approximately 46 kDa protein under reducing conditions in SDS-PAGE.
Biological Activity	The activity was determined by its ability to bind Human IL-12B in a linear range of 2-60 ng/ml in functional ELISA
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Preparation and Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Upon reconstitution, this cytokine can be stored in working aliquots at 2°C to 8°C for one month, or at -20°C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for IL12RB1 active protein	Functions as an interleukin receptor which binds interleukin-12 with low affinity and is involved in IL12 transduction. Associated with IL12RB2 it forms a functional, high affinity receptor for IL12. Associates also with IL23R to form the interleukin-23 receptor which functions in IL23 signal transduction probably through activation of the Jak-Stat signaling cascade. Defects in IL12RB1 are a cause of mendelian susceptibility to mycobacterial disease (MSMD) [MIM:209950]; also known as familial disseminated atypical mycobacterial infection. This rare condition confers predisposition to illness caused by moderately virulent mycobacterial species, such as Bacillus Calmette-Guerin (BCG) vaccine and environmental non-tuberculous mycobacteria, and by the more virulent Mycobacterium tuberculosis. Other microorganisms rarely cause severe clinical disease in individuals with susceptibility to mycobacterial infections, with the exception of Salmonella which infects less than 50% of these individuals. The pathogenic mechanism underlying MSMD is the impairment of interferon-gamma mediated immunity, whose severity determines the clinical outcome. Some patients die of overwhelming mycobacterial disease with lepromatous-like lesions in early childhood, whereas others develop, later in life, disseminated but curable infections with tuberculoid granulomas. MSMD is a genetically heterogeneous disease with autosomal recessive, autosomal dominant or X- linked inheritance
Product Categories/Family for IL12RB1 active protein	Receptors CD
References	<ul style="list-style-type: none">• il-11 receptor in the pathogenesis of il-13-induced inflammation and remodeling .J. Immunol., Feb 2005; 174: 2305 - 2313.• recombinant soluble interleukin-11 (il-11) receptor -chain can act as an il-11 antagonist .Blood, Dec 1997; 90: 4403 - 4412.

NCBI AND UNIPROT INFORMATION

NCBI GI #	5031785
NCBI GeneID	3594
NCBI Accession #	NP_005526.1
NCBI GenBank Nucleotide #	NM_005535.1
UniProt Accession #	P42701 ; Q8N6Q7 ; A8K308 ; B2RPF1 ; B7ZKK3
Molecular Weight	46kDa
NCBI Official Full Name	interleukin-12 receptor subunit beta-1 isoform 1
UniProt Protein Name	Interleukin-12 receptor subunit beta-1
UniProt Gene Name	IL12RB1
UniProt Synonym Gene Names	IL12R; IL12RB; IL-12 receptor subunit beta-1; IL-12R subunit beta-1; IL-12R-beta-1; IL-12RB1
UniProt Entry Name	I12R1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/il12rb1-active-protein/il-12-receptor-beta-1/76114>