

Recombinant Human IL12RB1

Cat. No. IL12RB1-8326H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL12RB1 was expressed in NSO Cells.
Species	Human
Source	Mammalian Cells
Description	Interleukin 12 receptor, beta 1 (IL12RB1), also known as CD212, is a type I transmembrane protein that belongs to the gp130/G-CSF receptor family. It is a common subunit of both the IL-12 and IL-23 receptor complexes which play roles in T cell mediated inflammatory reactions. IL12RB1 binds IL-12 with low affinity and is involved in IL-12 transduction. In association with IL23R, it forms the IL-23 receptor complex which functions in IL-23 signal transduction probably through activation of the Jak-STAT signaling cascade. IL12RB1 is expressed on activated T cells, B cells, NK cells, macrophages, and microglia. Defects in IL12RB1 are generally associated with selective susceptibility to weakly pathogenic mycobacteria and Salmonella species. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported.
Form	This recombinant protein was 0.2 µm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 with no calcium, magnesium, or preservatives.
Molecular Mass	The predicted molecular weight of Recombinant Human IL-12 Rβ1 is Mr 84.5 kDa (monomer). However, the actual molecular weight as observed by migration on SDS-

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PAGE is Mr 110 kDa.

AA Sequence

crtsecc fqdppypdad sgsasgprdl rcyrisdry ecswqyegpt agvshflrcc lssgrccyfa agsatrlqfs
dqagvsvlyt vtlwveswar nqtekspevt lqlynsvkye pplgdikvsk lagqlrmewe tpdnqvgaev
qfhrtpssp wklgdcgppd ddesclclpl emnvaqefql rrrqlgsqgs swskwsspvc vppenppqpq
vrfsvlelqg dgrrrltke qptqllepeg cqglapgtev tyrlqlhmls cpckakatrl lhlgkmpyls
gaaynvavis snqfgpglnq twhipadtht epvalnisvg tngttmywpa raqsmtycie wqpvgqdggl
atcsltapqd pdpagmatys wsresgamgq ekcyitifa sahpekltlw stvlstyhfg gnasaagtph
hvsvknhsld svsvdwapsl lscpgvlke yvvrcredsd kvvsehvpqp tetqvtlslg ragvaytvqv
radtawlrqv wsqppqrsie iegrmcpksc dkthtccppc apellggpsv flfppkpkdt lmsrtpevt
cvvvdvshed pevknfwyvd gvevhnatk preeqynsty rvsvltvlh qdwlngkeyk ckvsnkappa
piektiskak gqprepvyt lpsrdeltk nqvslclvk gfypsdiave wesngqpenn ykttppvlds
dgsfflyskl tvdksrwqqg nvfscsvmhe alnhnytqks lslspgkhkh hhh

Endotoxin

<1.0 eu/μg="" as="" determined="" by="" the="" lal="">

Purity

>95% by SDS-PAGE and analyzed by silver stain.

Storage

This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles.

GENE INFORMATION

Gene Name

IL12RB1 interleukin 12 receptor, beta 1 [Homo sapiens]

Official Symbol

IL12RB1

Synonyms

IL12RB1; interleukin 12 receptor, beta 1; IL12RB; interleukin-12 receptor subunit beta-1; CD212; IL-12RB1; IL-12R-beta-1; IL-12R subunit beta-1; IL-12 receptor beta

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	component; IL-12 receptor subunit beta-1; interleukin-12 receptor beta-1 chain; IL-12R-BETA1; MGC34454;
Gene ID	3594
mRNA Refseq	NM_005535
Protein Refseq	NP_005526
MIM	601604
UniProt ID	P42701
Chromosome Location	19p13.1
Pathway	Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; IL12-mediated signaling events, organism-specific biosystem; IL23-mediated signaling events, organism-specific biosystem; IL27-mediated signaling events, organism-specific biosystem; Jak-STAT signaling pathway, organism-specific biosystem; Jak-STAT signaling pathway, conserved biosystem;
Function	cytokine receptor activity; contributes_to interleukin-12 receptor activity; contributes_to interleukin-12 receptor binding; contributes_to interleukin-23 binding; contributes_to interleukin-23 receptor activity; receptor activity;