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Diagnostik & molekulare Diagnostik



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-IL-12p40 [Antibody 80] Standard Size Ab03655-10.0

Isotype and Format: Human IgG1, Kappa

Clone Number: Antibody 80

Alternative Name(s) of Target: IL-12; IL-12B; IL-23; NKSF2; CLMF p40; Interleukin-12; Interleukin-23; Interleukin-12 subunit beta; IL-12 subunit p40; Interleukin-12 subunit p40; Cytotoxic lymphocyte maturation factor 40 kDa subunit; NK cell stimulatory factor chain 2; PMA204, Antibody 1; Antibody 50

UniProt Accession Number of Target Protein: P29460

Published Application(s): functional assay, inhibit, neutralize, therapeutic, ELISA

Published Species Reactivity: Human

Immunogen: The original mouse antibody PMA204 was generated by immunizing mice with recombinant human IL-12 as an immunogen. This antibody is the humanized version of the murine antibody PMA204 generated by grafting CDRs of the mouse antibody onto human framework regions. The antibody was further engineered by introducing backmutations and 3 point mutations in the heavy chain and using a combination approach to get the optimized variant.

Specificity: This antibody specifically binds an epitope between amino acid residues 253 and 286 of the common subunit p40 of the human IL-12 and IL-23. IL-12R β 1 binding to IL-12 and IL-23 is mediated via the common p40 subunit. IL-12 is a cytokine secreted by activated inflammatory cells (monocytes, macrophages, neutrophils, microglia, dendritic cells). IL-12 can act as a growth factor for activated T and NK cells, enhance the lytic activity of NK/lymphokine-activated killer cells, and stimulate the production of IFN-gamma by resting PBMC. It associated with IL23A to form the IL-23 interleukin, which is a heterodimeric cytokine which functions in innate and adaptive immunity. IL-23 is secreted by activated human macrophages as well as dendritic cells. IL-23 predominantly acts on memory T-cells and has been postulated to promote autoimmune disease through the regulation of IL-17A and IL-17F.

Application Notes: This antibody neutralized the binding of IL-12 to IL-12R β 2 and IL-23 to IL-23R but did not inhibit the binding of IL-12 or IL-23 or IL-12p40 or IL-12p80 to IL-12R β 1. The human IgG version of this antibody binds IL-12 and IL-23 with a binding affinity of K_d= 292 pM and K_d= 280 pM respectively. This antibody was reported to inhibit IL-12 induced IFN-gamma release by NK-92 cells and human PBMCs. This antibody can also inhibit IL-23 induced IL-17 secretion by murine splenocytes. The therapeutic efficacy of this antibody was studied in the skin inflammation mouse model. This antibody was reported to significantly decrease epidermal thickness and reduced erythema and induration caused by IL-23. This antibody is capable of detecting recombinant IL-23 and native IL-23 produced by SAC stimulated PBMCs in an ELISA. This antibody showed reduced binding to IL-23 mutants D265A and R266A in an ELISA (US8563697).

Antibody First Published in:

PMID:

Note on publication:

Product Form

Size: 100 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note - This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.