



Rat Anti-Mouse IL-12 p75 Monoclonal antibody, clone R2-9A5 (CABT-L4486)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview

The R2-9A5 monoclonal antibody reacts with mouse interleukin-12 (IL-12), a heterodimeric 75 kDa (p75) cytokine consisting of two covalently linked subunits, 40 kDa (p40) and 35 kDa (p35). IL-12 is secreted by activated monocytes, macrophages, dendritic cells and T cells in response to bacterial pathogens or products such as lipopolysaccharides (LPS). IL-12 is a potent regulator of cell-mediated immune responses and plays a key role in the development of Th1 responses, leading to IFN γ and IL-2 production. The R2-9A5 antibody has been shown to neutralize the biological effects of IL-12 when administered in vivo.

Target	Mouse IL-12 p75
Immunogen	Recombinant mouse IL-12 p75
Isotype	IgG2b, κ
Source/Host	Rat
Species Reactivity	Mouse
Clone	R2-9A5
Purification	Protein G purified. Purity>95%. Determined by SDS-PAGE
Conjugate	Functional Grade
Applications	in vivo IL-12p75 neutralization, ELISA
Molecular Weight	150 kDa
Format	0.2 μ M filtered liquid. Purified from tissue culture supernatant in an animal free facility

Concentration	Lot specific
Size	5 mg
Buffer	PBS, pH 8.0. Contains no stabilizers or preservatives. [low endotoxin azide-free] Endotoxin level: <2EU/mg (<0.002EU/μg). Determined by LAL gel clotting assay Related dilution buffer: CABT-LB01
Preservative	None
Storage	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
Ship	Wet ice

BACKGROUND

Introduction	This gene encodes a subunit of a cytokine that acts on T and natural killer cells, and has a broad array of biological activities. The cytokine is a disulfide-linked heterodimer composed of the 35-kD subunit encoded by this gene, and a 40-kD subunit that is a member of the cytokine receptor family. This cytokine is required for the T-cell-independent induction of interferon (IFN)-gamma, and is important for the differentiation of both Th1 and Th2 cells. The responses of lymphocytes to this cytokine are mediated by the activator of transcription protein STAT4. Nitric oxide synthase 2A (NOS2A/NOS2) is found to be required for the signaling process of this cytokine in innate immunity.
Keywords	CLMF;CLMF p35;CLMF p40;CLMF1;CLMF2;Cytotoxic lymphocyte maturation factor 1, p35;Cytotoxic lymphocyte maturation factor 35 kDa subunit;Cytotoxic lymphocyte maturation factor 40 kDa subunit;IL 12 subunit p35;IL 12 subunit p40

GENE INFORMATION

Official Symbol	interleukin 12B; interleukin 12A
Synonyms	CLMF; CLMF p35; CLMF p40; CLMF1; CLMF2; Cytotoxic lymphocyte maturation factor 1, p35; Cytotoxic lymphocyte maturation factor 35 kDa subunit; Cytotoxic lymphocyte maturation factor 40 kDa subunit; IL 12 subunit p35; IL 12 subunit p40
References	Ponzetta, A., et al. (2019). "Neutrophils Driving Unconventional T Cells Mediate Resistance against Murine Sarcomas and Selected Human Tumors." Cell 178(2): 346-360 e324. PubMed;