



Mouse Anti-Human GM-CSF/CSF2 monoclonal antibody, clone NN17 (CABT-ZB1115)

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

PRODUCT INFORMATION

Specificity	It reacts with Human GM-CSF/CSF2 It has no cross-reactivity in ELISA with Human cell lysate (293 cell line).
Target	CSF2
Immunogen	Recombinant Human GM-CSF/CSF2 protein
Isotype	IgG
Source/Host	Mouse
Species Reactivity	Human
Clone	NN17
Purification	Protein A purified
Conjugate	Unconjugated
Applications	ELISA, ELISA(det) We recommend the following for sandwich ELISA (Capture - Detection): CABT-ZB826 - CABT-ZB1115 This antibody will detect GM-CSF/CSF2 in antibody pair set. [ABPR-ZB407]
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human GM-CSF / CSF2. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
Format	Purified, Liquid

Concentration	Lot specific
Size	50 µL, 100 µL, 200 µL, 1 mL
Buffer	PBS
Preservative	None
Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Ship	Wet ice

BACKGROUND

Introduction

Granulocyte-macrophage colony-stimulating factor (GM-CSF) is one of an array of cytokines with pivotal roles in embryo implantation and subsequent development. Several cell lineages in the reproductive tract and gestational tissues synthesise GM-CSF under direction by ovarian steroid hormones and signalling agents originating in male seminal fluid and the conceptus. The pre-implantation embryo, invading placental trophoblast cells and the abundant populations of leukocytes controlling maternal immune tolerance are all subject to GM-CSF regulation. GM-CSF stimulates the differentiation of hematopoietic progenitors to monocytes and neutrophils, and reduces the risk for febrile neutropenia in cancer patients. GM-CSF also has been shown to induce the differentiation of myeloid dendritic cells (DCs) that promote the development of T-helper type 1 (cellular) immune responses in cognate T cells. The active form of the protein is found extracellularly as a homodimer, and the encoding gene is localized to a related gene cluster at chromosome region 5q31 which is known to be associated with 5q-syndrome and acute myelogenous leukemia. As a part of the immune/inflammatory cascade, GM-CSF promotes Th1 biased immune response, angiogenesis, allergic inflammation, and the development of autoimmunity, and thus worthy of consideration for therapeutic target. GM-CSF has been utilized in the clinical management of multiple disease processes. Most recently, GM-CSF has been incorporated into the treatment of malignancies as a sole therapy, as well as a vaccine adjuvant. While the benefits of GM-CSF in this arena have been promising, recent reports have suggested the potential for GM-CSF to induce immune suppression and, thus, negatively impact outcomes in the management of cancer patients. GM-CSF deficiency in pregnancy adversely impacts fetal and placental development, as well as progeny viability and growth after birth, highlighting this cytokine as a central maternal determinant of pregnancy outcome with clinical relevance in human fertility.

Keywords	CSF2; colony stimulating factor 2 (granulocyte-macrophage); Csfgm; GMCSF
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GENE INFORMATION

Synonyms	CSF2; colony stimulating factor 2 (granulocyte-macrophage); Csfgm; GMCSF; Gm-CSf; MGI-IGM; granulocyte-macrophage colony-stimulating factor; CSF; put. GM-CSF; colony-stimulating factor; granulocyte-macrophage colony stimulating factor 2
Entrez Gene ID	1437
UniProt ID	P04141