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Product datasheet for AM32989AF-N

GM CSF (CSF2) Mouse Monoclonal Antibody [Clone ID: B-S37]

Product data:

Product Type:	Primary Antibodies
Clone Name:	B-S37
Applications:	ELISA
Recommended Dilution:	**ELISA.**
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant Human GM-CSF.
Specificity:	This antibody recognizes recombinant and natural GM-CSF (Granulocyte-macrophage colony-stimulating factor).
Formulation:	Phosphate-buffered saline. Sterile-filtered through 0.22 µm. Carrier and preservative free. State: Azide Free State: Liquid purified IgG fraction Preservative: None
Concentration:	lot specific
Purification:	Ion Exchange Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C. **DO NOT FREEZE!**
Stability:	Shelf life: one year from despatch.
Gene Name:	colony stimulating factor 2
Database Link:	Entrez Gene 1437 Human P04141

View online »

Background: Granulocyte-macrophage colony stimulating factor (GM-CSF) regulates hematopoiesis, cell migration and immunity. GM-CSF is crucial for the growth and development of granulocyte and macrophage progenitor cells particularly during host defence and inflammatory reactions. GM-CSF is glycosylated at two N-linked and several O-linked sites. Glycosylation of GMCSF is important as it can affect pharmacokinetics, receptor affinity, biological activity, in vivo clearance rates and immunoreactivity. Patients receiving human recombinant GM-CSF commonly develop antibodies that recognize recombinant human GM-CSF produced in yeast (sargramostim) and E. coli (molgramostin), which exhibit glycosylation patterns that are distinct to the native human glycosylation. This is a HCX protein. HCX Expression System Details HCX proteins mimic the proteins in the human body because they are expressed from human, rather than animal, insect or bacterial cells. This process gives them human post-translational modifications. Recombinant DNA techniques allow a human protein with the correct amino acid sequence to be expressed in a non-human cell line. However, non-human cells lack the appropriate cellular machinery, such as specific glycosyltransferases, necessary to produce the correct human post-translational modifications of a protein. An extreme example is seen in E. coli cells, which produce recombinant proteins with no glycosylation, as the above figure illustrates. Rodent and yeast cells are able to glycosylate proteins, but they are still different from glycosylation in human cells. Expression System Resultant Proteins Human (e.g. K562, HEK293) Correct amino acid sequence Human post-translational modifications Rodent (e.g. CHO, NSO) Correct amino acid sequence Some natural glycosylation - not human-like Yeast (e.g. Pichia) Correct amino acid sequence Some natural glycosylation - not human-like E.Coli Correct amino acid sequence No PTMs Although there have been significant attempts to make non-human cell derived cytokines more human-like, there is a growing awareness that in many instances, particularly in therapeutics, cytokines should mimic those found in the body as closely as possible.

Synonyms: CSF2, GMCSF, Sargramostim, Molgramostin