

Product datasheet for **AM33031PU-N**

CD20 (MS4A1) Mouse Monoclonal Antibody [Clone ID: NKI-B20/1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	NKI-B20/1
Applications:	ELISA, FC, IHC, IP
Recommended Dilution:	ELISA. Fow Cytometry. Immunoprecipitation. Immunohistochemistry on Frozen Sections.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Daudi cells (Burkitt lymphoma).
Specificity:	Normal and malignant B lymphocytes: <i>NKI-B20/1</i> can induce antibody-dependent cell-mediated cytotoxicity (ADCC) with rIL-2-activated NK cells from mouse spleen. Here the antigen density seemed the most important factor in determining the level of cell kill. Also with mouse peritoneal macrophages as effector cells <i>NKIB20/1</i> mediates cytotoxicity. For this IgG1 variant of NKI-B20 this is at variance to what has been reported for MABs of other specificities. Despite the high activity with murine effector cells, the <i>NIK-B20/1</i> MAb does not mediate ADCC with human peripheral blood NK cells, with or without stimulation with rIL-2, due to the lack of interaction of the murine MAb with the human Fc receptor. The CD20 antigen appears to be a good target antigen for various forms of cytotoxicity, to which its relatively high antigenic density, its resistance to antibody-induced modulation, and its unusual structure all contribute.
Formulation:	PBS State: Purified State: Liquid purified IgG fraction Preservative: 0.09% Sodium Azide
Concentration:	lot specific
Conjugation:	Unconjugated



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Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	membrane spanning 4-domains A1
Database Link:	Entrez Gene 931 Human P11836
Background:	<p>The antigen recognized by CD20 MAbs is a 35-37 kDa non-glycosylated phosphoprotein, that may function as a Ca²⁺ ion channel. The protein structure deduced from cloned DNA sequence suggests that the CD20 antigen is a transmembrane protein that passes the membrane four times, with both the C- and the N-terminus on the cytoplasmic side and only a small part exposed on the cell surface.</p> <p>Expression of CD20 antigen is specific for B lymphocytes and is present during most differentiation stages, beginning at the early pre-B cell stage and disappearing upon differentiation into plasma cells. The CD20 molecule appears to be involved in the activation and cell cycle progression of B lymphocytes. Stimulating as well as inhibitory effects in different phases of the cell cycle have been reported for different CD20 MAbs. Pokeweed mitogen induced differentiation of B lymphocytes into Ig-producing cells is inhibited by CD20 MAbs.</p> <p>The CD20 antigen is also expressed on most malignant B cells. In agreement with the expression during normal B cell differentiation, all malignancies of mature B cells are CD20 positive, but early pre-B ALL cells often lack CD20 antigen. The restriction of its expression to B lineage cells, together with the lack of expression on progenitor cells, makes CD20 antigen an interesting target for (antibody-based) immunotherapy for B cell lymphoid malignancies. Moreover, CD20 antigen is expressed at relatively high density on most normal and malignant B cells and it is not susceptible to antibody induced modulation.</p>
Synonyms:	MS4A1, Leu-16, Bp35, B-cell marker