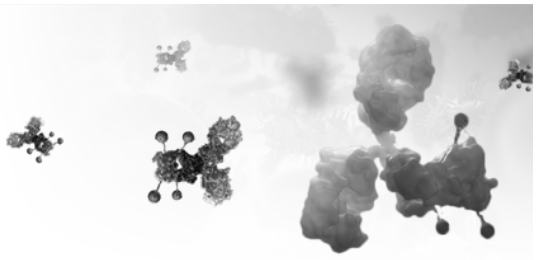

Mouse Anti-Human CD20 Monoclonal antibody, clone 2H7 (CABT-L4287)

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

PRODUCT INFORMATION

Product Overview	The 2H7 monoclonal antibody reacts with human and primate CD20. CD20 is a B cell-specific 33-37 kDa transmembrane protein which is also known as B-lymphocyte antigen, B1, and Bp35. CD20 plays roles in intracellular calcium regulation and B cell activation and is critical for an optimal B cell immune response against T-independent antigens. CD20 is first expressed after the induction of CD19 together with IgM during the pre-B to immature B cell transition in the bone marrow. It's expression then increases during maturation with almost all mature B cells expressing some level of CD20. However, CD20 is not expressed by plasma blasts or plasma cells. CD20 is expressed by most B cell neoplasms, and is useful in diagnosing B cell lymphomas and leukemia. Many anti-CD20 monoclonal antibodies are currently being used to successfully treat leukemia, lymphomas, and various autoimmune diseases. The 2H7 monoclonal antibody has been shown to bind to an epitope in the large extracellular loop of human CD20.
Target	Human/monkey CD20
Immunogen	Human tonsillar B cells
Isotype	IgG2b, κ
Source/Host	Mouse
Species Reactivity	Human, Monkey
Clone	2H7
Purification	Protein A purified. Purity>95%. Determined by SDS-PAGE
Conjugate	Functional Grade

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221

Applications	in vivo B cell depletion in hCD20 Tg mice, IHC-F, IP, FC
Molecular Weight	150 kDa
Format	0.2 μM filtered liquid. Purified from tissue culture supernatant in an animal free facility
Concentration	Lot specific
Size	5 mg
Buffer	PBS, pH 7.0. 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-LB04
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	B-lymphocyte antigen CD20 or CD20 is an activated-glycosylated phosphoprotein expressed on the surface of all B-cells beginning at the pro-B phase (CD45R+, CD117+) and progressively increasing in concentration until maturity. In humans CD20 is encoded by the MS4A1 gene. This gene encodes a member of the membrane-spanning 4A gene family. Members of this nascent protein family are characterized by common structural features and similar intron/exon splice boundaries and display unique expression patterns among hematopoietic cells and nonlymphoid tissues. This gene encodes a B-lymphocyte surface molecule that plays a role in the development and differentiation of B-cells into plasma cells. This family member is localized to 11q12, among a cluster of family members. Alternative splicing of this gene results in two transcript variants that encode the same protein.
Keywords	MS4A1;B1;Bp35;CD20;CVID5;LEU-16;MS4A2;S7

GENE INFORMATION

Official Symbol	CD20
Synonyms	MS4A1; B1; Bp35; CD20; CVID5; LEU-16; MS4A2; S7
References	Li, R., et al. (2015). "Proinflammatory GM-CSF-producing B cells in multiple sclerosis and B cell depletion therapy." Sci Transl Med 7(310): 310ra166. PubMed;

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221