

Product name:	IgM Chain C Rabbit Polyclonal Antibody
Cat number:	ABN12449
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Synthesized peptide derived from IgM Chain C at AA range: 391-440
Reactivity:	Human, Mouse, Rat
Applications:	WB 1:500-1:2000, IHC 1:100-1:300, ICC/IF 1:50-1:200, ELISA 1:10000-1:20000
Molecular Weight:	50kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

Immunoglobulins (Ig) are the antigen recognition molecules of B cells. An Ig molecule is made up of 2 identical heavy chains and 2 identical light chains (see MIM 147200) joined by disulfide bonds so that each heavy chain is linked to a light chain and the 2 heavy chains are linked together. Each Ig heavy chain has an N-terminal variable (V) region containing the antigen-binding site and a C-terminal constant (C) region, encoded by an individual C region gene, that determines the isotype of the antibody and provides effector or signaling functions. The heavy chain V region is encoded by 1 each of 3 types of genes: V genes (see MIM 147070), joining (J) genes (see MIM 147010), and diversity (D) genes (see MIM 146910). The C region genes are clustered downstream of the V region genes within the heavy chain locus on chromosome 14. The IGHM gene encodes the C region of the mu heavy chain, which disease:Chromosomal aberrations involving IGHG1 may be a cause of multiple myeloma [MIM:254500]. Translocation t(11;14)(q13;q32) with CCND1; translocation t(4;14)(p16.3;q32.3) with FGFR3; translocation t(6;14)(p25;q32) with IRF4.,miscellaneous:Disease protein OMM may represent an allelic form or another gamma chain subclass.,miscellaneous:Disease protein WIS is lacking most of the V region and all of the CH1 region.,miscellaneous:Disease protein ZUC lack most of the V region, all of the CH1 region, and part of the hinge compared with normal gamma-3 heavy chains.,miscellaneous:EU also differs in the amidation states of residues 155, 166, 177, 195, 198, 269, and 272 and in the order of residues 268-272.,miscellaneous:KOL also differs in the amidation states of residues 198, 267 and 272.,miscellaneous:Nie also differs in the amidation states of 35, 116, 198, 269 and 272.,miscellaneous:Nie has the G1M(17) allotypic marker, 97-K, and the G1M(1) markers, 239-D and 241-L. KOL and EU sequences have the G1M(3) marker and the G1M (non-1) markers.,miscellaneous:The hinge region in gamma-3 chains is about four times as long as in other gamma chains and contains three identical 15-residue segments preceded by a similar 17-residue segment (12-28).,online information:IGHM mutation db,polymorphism:All 4 combinations of the S/G and V/G polymorphisms at positions 191 and 216 have been observed in human mu chains.,subcellular location:During differentiation, B-lymphocytes switch from expression of membrane-bound IgM to secretion of IgM.,subunit:Dimer linked by 12 disulfide bonds; it has an extra interchain disulfide bond at position 7 in addition to the 11 normally present in the hinge region.,