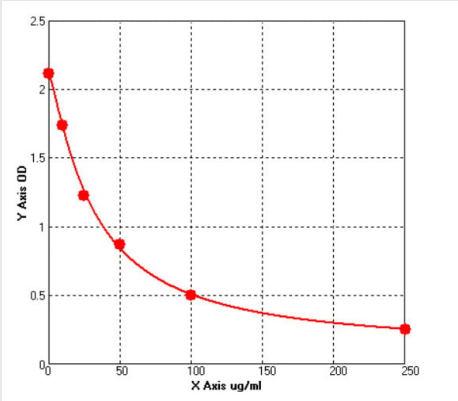
Complement Component 5 (C5) ELISA Kit for Canine

PRODUCT OVERVIEW

Product Name	Complement Component 5 (C5), ELISA Kit
Full Product Name	Canine Complement Component 5 ELISA Kit
Product Gene Name	C5 elisa kit
Species Reactivity	Canine
Assay Type	Quantitative Competitive
Samples	Serum, plasma, cell culture supernatants, body fluid and tissue homogenate
Sensitivity	1.0 ug/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of C5. No significant cross-reactivity or interference between C5 and analogues was observed. NOTE: Limited by current skills and knowledge, it is impossible for us to complete the cross-reactivity detection between C5 and all the analogues, therefore, cross reaction may still exist in some cases.
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	188,305 Da
OMIM	615749
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Product Categories/Family for C5 elisa kit	Immunology
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for C5 elisa kit	Principle of the Assay: C5 ELISA kit applies the competitive enzyme immunoassay technique utilizing an anti-C5 antibody and an C5-HRP conjugate. The assay sample and buffer are incubated together with C5-HRP conjugate in pre-coated plate for one hour. After the incubation period, the wells are decanted and washed five times. The wells are then incubated with a substrate for HRP enzyme. The product of the enzyme-substrate reaction forms a blue colored complex. Finally, a stop solution is added to stop the reaction, which will then turn the solution yellow. The intensity of color is measured spectrophotometrically at 450nm in a microplate reader. The intensity of the color is inversely proportional to the C5 concentration since C5 from samples and C5-HRP conjugate compete for the anti-C5 antibody binding site. Since the number of sites is limited, as more sites are occupied by C5 from the sample, fewer sites are left to bind C5-HRP conjugate. A standard curve is plotted relating the intensity of the color (O.D.) to the concentration of standards. The C5 concentration in each sample is interpolated from this standard curve. Intended Uses: This C5 ELISA kit is a 1.5 hour solid-phase ELISA designed for the quantitative determination of Canine C5. This ELISA kit for research use only, not for therapeutic or test applications!
Other Notes	Small volumes of C5 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for C5 purchase	MBS736392 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Complement Component 5 (C5) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing C5. The ELISA analytical biochemical technique of the MBS736392 kit is based on C5 antibody-C5 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect C5 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, C5. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of C5 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for C5. It may not necessarily be applicable to this product.

NCBI GI #	109731812
NCBI GeneID	727
NCBI Accession #	AAI13739.1
UniProt Secondary Accession #	Q14CJ0; Q27I61
UniProt Related Accession #	P01031
NCBI Official Full Name	Complement component 5
NCBI Official Synonym Full Names	complement component 5
NCBI Official Symbol	C5
NCBI Official Synonym Symbols	C5D; C5a; C5b; ECLZB; CPAMD4
UniProt Protein Name	Complement C5
UniProt Synonym Protein Names	C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4Cleaved into the following 4 chains:Complement C5 beta chain; Complement C5 alpha chain; C5a anaphylatoxin; Complement C5 alpha' chain
Protein Family	Complement C5
UniProt Gene Name	C5
UniProt Synonym Gene Names	CPAMD4
UniProt Entry Name	CO5_HUMAN
NCBI Protein Information	complement C5; prepro-C5; C5a anaphylatoxin; anaphylatoxin C5a analog; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4

NCBI Summary for C5	The protein encoded by this gene is the fifth component of complement, which plays an important role in inflammatory and cell killing processes. This protein is comprised of alpha and beta polypeptide chains that are linked by a disulfide bridge. An activation peptide, C5a, which is an anaphylatoxin that possesses potent spasmogenic and chemotactic activity, is derived from the alpha polypeptide via cleavage with a convertase. The C5b macromolecular cleavage product can form a complex with the C6 complement component, and this complex is the basis for formation of the membrane attack complex, which includes additional complement components. Mutations in this gene cause complement component 5 deficiency, a disease where patients show a propensity for severe recurrent infections. Defects in this gene have also been linked to a susceptibility to liver fibrosis and to rheumatoid arthritis. [provided by RefSeq, Jul 2008]
UniProt Comments for C5	C5: Activation of C5 by a C5 convertase initiates the spontaneous assembly of the late complement components, C5-C9, into the membrane attack complex. C5b has a transient binding site for C6. The C5b-C6 complex is the foundation upon which the lytic complex is assembled. Defects in C5 are the cause of complement component 5 deficiency (C5D). A rare defect of the complement classical pathway associated with susceptibility to severe recurrent infections, predominantly by Neisseria gonorrhoeae or Neisseria meningitidis. An association study of C5 haplotypes and genotypes in individuals with chronic hepatitis C virus infection shows that individuals homozygous for the C5_1 haplotype have a significantly higher stage of liver fibrosis than individuals carrying at least 1 other allele (PubMed:15995705). Protein type: Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 9q33-q34 Cellular Component: membrane attack complex; extracellular space; extracellular region Molecular Function: protein binding; chemokine activity; endopeptidase inhibitor activity; C5a anaphylatoxin chemotactic receptor binding; receptor binding Biological Process: activation of MAPK activity; positive regulation of chemotaxis; in utero embryonic development; cytolysis; complement activation, alternative pathway; chemotaxis; glucose homeostasis; leukocyte migration during inflammatory response; complement activation; cellular calcium ion homeostasis; G-protein coupled receptor protein signaling pathway; positive regulation of angiogenesis; cell surface receptor linked signal transduction; regulation of complement activation; innate immune response; response to stress; negative regulation of dopamine secretion; inflammatory response; complement activation, classical pathway Disease: Complement Component 5 Deficiency; Eculizumab, Poor Response To
Research Articles on C5	**1.** C5a, but not C5a-des Arg, was able to induce further heteromer formation between complement C5a receptors.
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