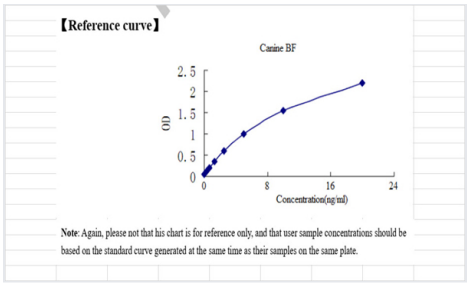
Factor B (BF) ELISA Kit for Canine

PRODUCT OVERVIEW

Product Name	Factor B (BF), ELISA Kit
Full Product Name	Canine Factor B (BF) ELISA Kit
Product Gene Name	BF elisa kit
Species Reactivity	Canine
Assay Type	Sandwich
Detection Range	20 ng/mL-0.312 ng/mL
Sensitivity	Up to 0.06 ng/mL
Preparation and Storage	Store all reagents at 2-8 degree C.
Inter-assay Precision	<= 12%
Intra-assay Precision	<= 8%
Molecular Weight	68,872 Da
OMIM	138470
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for BF elisa kit	Principle of the Assay: As mentioned above, this kit utilizes the Double Antibody Sandwich ELISA technique. The pre-coated antibody is an anti-Canine BF monoclonal antibody, while the detection antibody is a biotinylated polyclonal antibody. Samples and biotinylated antibodies are added into ELISA plate wells and washed out with PBS or TBS after their respective additions to the wells. Then Avidin-peroxidase conjugates are added to the wells in after. TMB substrate is used for coloration after the enzyme conjugate has already been thoroughly washed out of the wells by PBS or TBS. TMB reacts to form a blue product from the peroxidase activity, and finally turns to yellow after addition of the stop solution (Color Reagent C). The color intensity and quantity of target analyte in the sample are positively correlated.
Other Notes	Small volumes of BF 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 BF purchase	MBS2606231 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Factor B (BF) 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 BF. The ELISA analytical biochemical technique of the MBS2606231 kit is based on BF antibody-BF antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect BF antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, BF. 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 BF elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	13560705
NCBI GeneID	629
NCBI Accession #	AAK30167.1
UniProt Secondary Accession #	O15006; Q29944; Q53F89; Q5JP67; Q5ST50; Q96HX6; Q9BTF5; Q9BX92; B0QZQ6
UniProt Related Accession #	P00751
NCBI Official Full Name	factor B
NCBI Official Synonym Full Names	complement factor B
NCBI Official Symbol	CFB
NCBI Official Synonym Symbols	BF; FB; BFD; GBG; CFAB; CFBD; PBF2; AHUS4; FBI12; H2-Bf; ARMD14
UniProt Protein Name	Complement factor B
UniProt Synonym Protein Names	C3/C5 convertase; Glycine-rich beta glycoprotein; GBG
Protein Family	Complement factor B-like protease
UniProt Gene Name	CFB
UniProt Synonym Gene Names	BF; BFD; GBG
UniProt Entry Name	CFAB_HUMAN
NCBI Protein Information	complement factor B
NCBI Summary for BF	This gene encodes complement factor B, a component of the alternative pathway of complement activation. Factor B circulates in the blood as a single chain polypeptide. Upon activation of the alternative pathway, it is cleaved by complement factor D yielding the noncatalytic chain Ba and the catalytic subunit Bb. The active subunit Bb is a serine protease which associates with C3b to form the alternative pathway C3 convertase. Bb is involved in the proliferation of preactivated B lymphocytes, while Ba inhibits their proliferation. This gene localizes to the major histocompatibility complex (MHC) class III region on chromosome 6. This cluster includes several genes involved in regulation of the immune reaction. Polymorphisms in this gene are associated with a reduced risk of age-related macular degeneration. The polyadenylation site of this gene is 421 bp from the 5' end of the gene for complement component 2. [provided by RefSeq, Jul 2008]

UniProt Comments for BF	CFB: Factor B which is part of the alternate pathway of the complement system is cleaved by factor D into 2 fragments: Ba and Bb. Bb, a serine protease, then combines with complement factor 3b to generate the C3 or C5 convertase. It has also been implicated in proliferation and differentiation of preactivated B- lymphocytes, rapid spreading of peripheral blood monocytes, stimulation of lymphocyte blastogenesis and lysis of erythrocytes. Ba inhibits the proliferation of preactivated B-lymphocytes. Defects in CFB are a cause of susceptibility to hemolytic uremic syndrome atypical type 4 (AHUS4). An atypical form of hemolytic uremic syndrome. It is a complex genetic disease characterized by microangiopathic hemolytic anemia, thrombocytopenia, renal failure and absence of episodes of enterocolitis and diarrhea. In contrast to typical hemolytic uremic syndrome, atypical forms have a poorer prognosis, with higher death rates and frequent progression to end-stage renal disease. Susceptibility to the development of atypical hemolytic uremic syndrome can be conferred by mutations in various components of or regulatory factors in the complement cascade system. Other genes may play a role in modifying the phenotype. Belongs to the peptidase S1 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted, signal peptide; Protease; EC 3.4.21.47; Secreted Chromosomal Location of Human Ortholog: 6p21.3 Cellular Component: extracellular region; extracellular space; plasma membrane Molecular Function: complement binding; serine-type endopeptidase activity Biological Process: complement activation; complement activation, alternative pathway; innate immune response; proteolysis; regulation of complement activation Disease: Complement Factor B Deficiency; Hemolytic Uremic Syndrome, Atypical, Susceptibility To, 4; Macular Degeneration, Age-related, 14
Research Articles on BF	**1.** These results suggest that a maternal immune response through complement fB might play a role in the development of preeclampsia, particularly in African-American patients.
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