ARG82647
Human Complement Factor I ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG82647 Human Complement Factor I ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human Complement Factor I in serum, plasma, cell culture supernatants, saliva and milk.
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	Cross-Reactivity: Pig: 75% Rat: 5% Mouse, Monkey, Bovine, Dog and Rabbit: None No significant cross-reactivity observed with complement factor B, factor D, factor H, factor P, C1, C2, C3, C4, C5, C6, C7, C8 and C9.
Target Name	Complement Factor I
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	0.28 µg/ml
Sample Type	Serum, plasma, cell culture supernatants, saliva and milk.
Standard Range	0.375 - 24 µg/ml
Sample Volume	25 µl
Precision	Intra-Assay CV: 5.4% Inter-Assay CV: 9.8%
Alternate Names	Complement factor I; KAF; C3B/C4B inactivator; C3b-INA; ARMD13; EC 3.4.21.45; FI; AHUS3; C3BINA; IF

Application Instructions

Assay Time	~ 3 hours

Properties

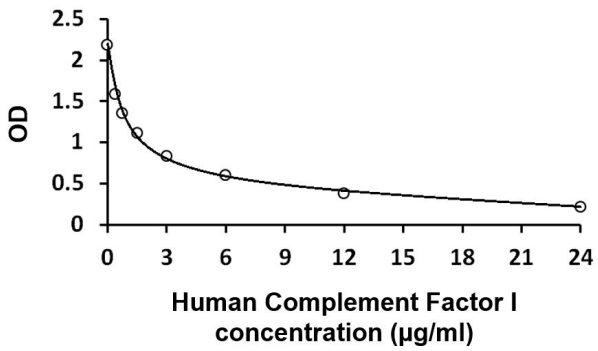
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CFI

Gene Full Name	complement factor I
Background	This gene encodes a serine proteinase that is essential for regulating the complement cascade. The encoded preproprotein is cleaved to produce both heavy and light chains, which are linked by disulfide bonds to form a heterodimeric glycoprotein. This heterodimer can cleave and inactivate the complement components C4b and C3b, and it prevents the assembly of the C3 and C5 convertase enzymes. Defects in this gene cause complement factor I deficiency, an autosomal recessive disease associated with a susceptibility to pyogenic infections. Mutations in this gene have been associated with a predisposition to atypical hemolytic uremic syndrome, a disease characterized by acute renal failure, microangiopathic hemolytic anemia and thrombocytopenia. Primary glomerulonephritis with immune deposits and age-related macular degeneration are other conditions associated with mutations of this gene. [provided by RefSeq, Dec 2015]
Function	Trypsin-like serine protease that plays an essential role in regulating the immune response by controlling all complement pathways. Inhibits these pathways by cleaving three peptide bonds in the alpha-chain of C3b and two bonds in the alpha-chain of C4b thereby inactivating these proteins (PubMed:7360115, PubMed:17320177). Essential cofactors for these reactions include factor H and C4BP in the fluid phase and membrane cofactor protein/CD46 and CR1 on cell surfaces (PubMed:2141838, PubMed:9605165, PubMed:12055245). The presence of these cofactors on healthy cells allows degradation of deposited C3b by CFI in order to prevent undesired complement activation, while in apoptotic cells or microbes, the absence of such cofactors leads to C3b-mediated complement activation and subsequent opsonization (PubMed:28671664). [UniProt]
Highlight	Related products: Complement component antibodies; Complement component ELISA Kits; Complement component Duos / Panels; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
Cellular Localization	Secreted, extracellular space. [UniProt]

Images



ARG82647 Human Complement Factor I ELISA Kit standard curve image

ARG82647 Human Complement Factor I ELISA Kit results of a typical standard run with optical density reading at 450 nm.