

Mouse F9 Antibody Pair Set

Catalog No.	E-KAB-0311	Applications	ELISA
Synonyms	F9, HEMB, P19, PTC, THPH8, Christmas Factor		

Kit components & Storage

Title	Specifications	Storage
Mouse F9 Capture Antibody	1 vial, 100 µg	Store at -20°C for one year. Avoid freeze / thaw cycles.
Mouse F9 Detection Antibody (Biotin)	1 vial, 50 µL	Store at -20°C for one year. Avoid freeze / thaw cycles.

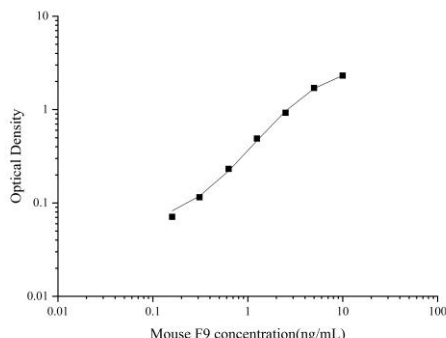
Note: Centrifuge before opening to ensure complete recovery of vial contents.

Product Information

Items		Characteristic (E-KAB-0311)	
		Mouse F9 Capture Antibody	Mouse F9 Detection Antibody (Biotin)
Immunogen Information	Immunogen	Recombinant Mouse F9 protein	Recombinant Mouse F9 protein
	Swissprot	P16294	
Product details	Reactivity	Mouse	Mouse
	Host	Rabbit	Rabbit
	Conjugation	Unconjugated	Biotin
	Concentration	0.5mg/mL	/
	Buffer	PBS with 0.04% Proclin 300, 50% glycerol, pH 7.4	PBS with 0.04% Proclin 300, 1% protective protein, 50% glycerol, pH 7.4
	Purify	Protein A & Antigen Affinity	Protein A & Antigen Affinity
	Specificity	Detects Mouse F9 in ELISAs.	

Applications

Mouse F9 Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images																
ELISA Capture	0.5-4µg/mL	Mouse F9 Capture Antibody	 <p>The graph is a log-log plot of Optical Density versus Mouse F9 concentration (ng/mL). The x-axis ranges from 0.01 to 100 ng/mL, and the y-axis ranges from 0.01 to 10. The data points show a clear upward trend, indicating that as the concentration of Mouse F9 increases, the optical density also increases. The curve is approximately linear on this log-log scale, suggesting a power-law relationship between the two variables.</p> <table border="1"> <caption>Approximate data points from the standard curve</caption> <thead> <tr> <th>Mouse F9 concentration (ng/mL)</th> <th>Optical Density</th> </tr> </thead> <tbody> <tr> <td>0.1</td> <td>0.05</td> </tr> <tr> <td>0.2</td> <td>0.1</td> </tr> <tr> <td>0.5</td> <td>0.2</td> </tr> <tr> <td>1</td> <td>0.4</td> </tr> <tr> <td>2</td> <td>0.8</td> </tr> <tr> <td>5</td> <td>1.5</td> </tr> <tr> <td>10</td> <td>2.5</td> </tr> </tbody> </table>	Mouse F9 concentration (ng/mL)	Optical Density	0.1	0.05	0.2	0.1	0.5	0.2	1	0.4	2	0.8	5	1.5	10	2.5
Mouse F9 concentration (ng/mL)	Optical Density																		
0.1	0.05																		
0.2	0.1																		
0.5	0.2																		
1	0.4																		
2	0.8																		
5	1.5																		
10	2.5																		
ELISA Detection	1:1000-1:10000	Mouse F9 Detection Antibody (Biotin)																	

Note: This standard curve is only for demonstration purposes. A standard curve should be generated for each assay!

Background

Coagulation Factor IX, also known as Christmas Factor, is secreted by the liver and plays a key role in the activation of the intrinsic clotting cascade (1). Factor IX consists of a Gla domain, two tandem EGF-like domains, an activation peptide, and an S1 serine protease domain (2). Mature human Factor IX shares approximately 81% amino acid sequence identity with mouse and rat Factor IX. Alternative splicing generates an additional isoform that lacks the first EGF-like domain. The Gla domain is modified by Vitamin K-dependent gamma-carboxylation and mediates the association of Factor IX with phospholipid bilayers (3, 4). The activation peptide is removed by Factor XIa mediated cleavage, resulting in heavy and light chains that remain disulfide-linked (5). Factor IX can also be activated by proteolytic factors in multiple snake venoms (6, 7). Active Factor IX associates with Factor VIIIa on the platelet surface where it cleaves and activates Factor X, leading to Fibrin deposition and clot formation (8-10). The human Factor IX gene is highly polymorphic, and Hemophilia B can be caused by X-linked deficiency of Factor IX activity (11-14).