

Rat ICAM-1/CD54 Antibody Pair Set

Catalog No.	E-KAB-0099	Applications	ELISA
Synonyms	ICAM1, BB2, CD54, P3.58, intercellular adhesion molecule 1		

Kit components & Storage

Title	Specifications	Storage
Rat ICAM-1/CD54 Capture Antibody	1 vial, 100 µg	Store at -20°C for one year. Avoid freeze / thaw cycles.
Rat ICAM-1/CD54 Detection Antibody (Biotin)	1 vial, 50 µL	Store at -20°C for one year. Avoid freeze / thaw cycles.

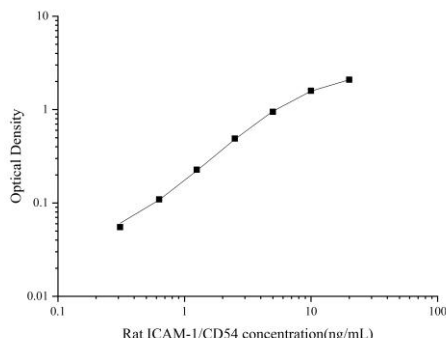
Note: Centrifuge before opening to ensure complete recovery of vial contents.

Product Information

Items		Characteristic (E-KAB-0099)	
		Rat ICAM-1/CD54 Capture Antibody	Rat ICAM-1/CD54 Detection Antibody (Biotin)
Immunogen Information	Immunogen	Recombinant Rat ICAM-1/CD54 protein	Recombinant Rat ICAM-1/CD54 protein
	Swissprot	Q00238	
Product details	Reactivity	Rat	Rat
	Host	Mouse	Goat
	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 or G	Antigen Affinity
	Specificity	Detects Rat ICAM-1/CD54 in ELISAs.	

Applications

Rat ICAM-1/CD54 Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images																		
ELISA Capture	0.5-4µg/mL	Rat ICAM-1/CD54 Capture Antibody	 <p>The graph displays a standard curve for the Rat ICAM-1/CD54 Sandwich ELISA Assay. The x-axis represents the concentration of Rat ICAM-1/CD54 in ng/mL, ranging from 0.1 to 100 on a logarithmic scale. The y-axis represents Optical Density, ranging from 0.01 to 10 on a logarithmic scale. The data points show a clear upward trend, indicating that as the concentration of the antigen increases, the optical density also increases.</p> <table border="1"> <caption>Approximate data points from the standard curve</caption> <thead> <tr> <th>Rat ICAM-1/CD54 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>0.7</td> </tr> <tr> <td>5</td> <td>1.2</td> </tr> <tr> <td>10</td> <td>1.8</td> </tr> <tr> <td>20</td> <td>2.5</td> </tr> </tbody> </table>	Rat ICAM-1/CD54 concentration (ng/mL)	Optical Density	0.1	0.05	0.2	0.1	0.5	0.2	1	0.4	2	0.7	5	1.2	10	1.8	20	2.5
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ELISA Detection	1:1000-1:10000	Rat ICAM-1/CD54 Detection Antibody (Biotin)																			

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

Background

ICAM-1 (intercellular adhesion molecule-1), also known as CD54, is a transmembrane protein that is upregulated on endothelial and epithelial cells at sites of inflammation. It mediates the vascular adhesion and paracellular migration of leukocytes expressing activated LFA-1 (CD11a/CD18) and Mac-1 (CD11b/CD18). It also binds several non-integrin ligands including CD43/Sialoporphin, Fibrinogen, Hyaluronan, rhinoviruses, and Plasmodium falciparum-infected erythrocytes. Soluble ICAM-1 promotes angiogenesis and serves as an indicator of vascular endothelial cell activation or damage. Elevated levels of soluble ICAM-1 are associated with cardiovascular disease, type 2 diabetes, organ transplant dysfunction, oxidant stress, increased abdominal fat mass, hypertension, liver disease, certain malignancies, and cerebral malaria.