Canine Creatine Kinase MB isoenzyme (CK-MB)ELISA Kit

Product Code	CSB-E15852c
Abbreviation	CK-MB
Target Name	Creatine Kinase MB isoenzyme (CK-MB)
Product Type	ELISA Kit
Immunogen Species	Canis lupus familiaris (Dog) (Canis familiaris)
Sample Types	serum, plasma
Detection Range	1.56 μIU/mL-100 μIU/mL
Sensitivity	0.78 μIU/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Cardiovascular
Tag Info	quantitative
Protein Description	Competitive

Description

Specifically designed for canine species, the Canine Creatine Kinase MB isoenzyme (CK-MB) ELISA kit is optimized for the quantitative detection of CK-MB in serum and plasma samples. This kit offers a detection range from 1.56 μIU/mL to 100 μIU/mL with a sensitivity of 31.25 ng/mL, providing precise measurements based on a competitive assay principle. It usually takes 1 to 5 hours to complete the detection and needs about 50-100 μl sample.

Canine Creatine Kinase MB isoenzyme (CK-MB) is a specific form of creatine kinase found in dogs. It is a valuable biomarker for assessing myocardial damage in canines. Studies have focused on evaluating CK-MB levels in various conditions, such as chronic mitral valve disease and visceral leishmaniasis. Dogs with cardiovascular diseases exhibit significantly higher CK-MB levels compared to healthy subjects [1][2]. Furthermore, CK-MB is used alongside other cardiac markers, such as cardiac troponins, to assess cardiac injury in dogs.

References:
[1] U. Bakirel and S. Güne?, "Value of cardiac markers in dogs with chronic mitral valve disease", Acta Veterinaria, vol. 59, no. 2-3, p. 223-229, 2009. https://doi.org/10.2298/avb0903223b

[2] V. Silva, M. Sousa, C. Araujo, A. Lima, & R. Carareto, "Cardiac biomarkers in dogs with visceral leishmaniasis", Archivos De Medicina Veterinaria, vol. 48, no. 3, p. 269-275, 2016. https://doi.org/10.4067/s0301-732x2016000300004

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of canine CK-MB in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:100	Average %	84
	Range %	80-88
1:200	Average %	98
	Range %	94-102
1:400	Average %	90
	Range %	86-94
1:800	Average %	92
	Range %	88-96

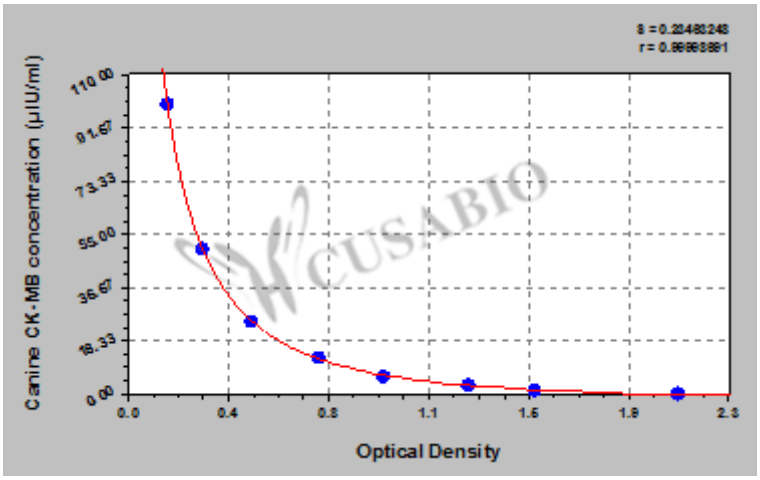
Recovery

The recovery of canine CK-MB spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	100	95-107
EDTA plasma (n=4)	89	85-93

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



µIU/ml	OD1	OD2	Average
100	0.157	0.162	0.160
50	0.301	0.284	0.293
25	0.464	0.491	0.478
12.5	0.736	0.715	0.726
6.25	0.982	0.959	0.971
3.12	1.275	1.307	1.291
1.56	1.513	1.563	1.538
0	2.029	2.126	2.078