

Rodent NIBP CODA® Monitor Sets

Non-invasive Animal Hemodynamics



Accurate, streamlined recording of non-invasive blood pressure data from mice and rats

ADInstruments' Rodent NIBP CODA® Monitor Sets use the precision of Kent Scientific's Volume Pressure Recording (VPR) technology to accurately and reliably measure non-invasive blood pressure from mice and rats.

Each Set uses a specialized VPR tail-cuff system to accurately record blood pressure from mice as small as 8 grams to rats over 950 grams - a method validated as providing a high correlation with telemetry and direct blood pressure measurements¹.

Designed for LabChart Integration

NIBP data is streamed directly from the CODA[®] Monitor into LabChart, automatically detecting the animals' systolic, diastolic, mean blood pressure, and heart rate. This streamlined solution is ideal for researchers looking to capture blood pressure data in awake or anesthetized animals easily and unobtrusively over long sampling periods with a high standard of care.

CODA[®] Sets Overview

ADInstruments CODA[®] Monitor (Controller)

Validation of volume-pressure recording tail-cuff blood pressure measurements. Feng et al, 2008, Am J Hypertens, v12 pp1288-91











CODA[®] Rodent Cuff Kit (includes Occlusion Cuffs and VPR Cuff Sensors)

Solution Highlights

- Easy to use touch screen display
- Automatic detection and display of systolic, diastolic, mean blood pressure, and heart rate
- Works with a wide range of cuffs to accurately cater to a variety of rodent tail sizes
- Direct integration with LabChart software for comprehensive data analysis (sold separately)
- · Provides a record of occlusion waveforms and detection points through automatically added comments

LabChart LabChart 8 for Windows

(purchased separately)

CODA[®] Monitor Device

Enabler Software



RightTemp Sensors



Infrared Thermometer with LaserSight



Applications include: Hemodynamic Studies • Hyper/Hypotension Obesity • Surgical Monitoring • Drug Screening

2 - 2		Data Pad	Comments	Winde		Layo														9
File	Commands CODA.adicht: Chart View (CODA-2002	IX R	Mouse NIBP CODA.adicht: Data Pad View																	
1	2 3 4	5 (8 9			10/06/20				ve point at t=1									- -
180 -							-	▼ 163 mmHg	0	A	в	с	D	E	F	G	н			
160 · · 140 · 120 ·	Chart View - Systolic BP x		×					Systolic BP	•	Systolic BP Mean mmHg		Mean BP Mean mmHg	Heart Rate Mean bpm	Tail Volume Mean µL		Pad Temp' Mean °C	Animal Temp' Mean *C	O-Cuff Mean mmHg	VPR Mean mmHg	K Full Commer
180 -	Chart View - Diastolic BP x							▼ 129 mmHg		156.0	131.0	139.0	570.9937	19.0008	0.3	33.9996	34.7999	159.9984	129.0	Systolic BP = 160 mn
160 -	1792							Diastolic BP		0 152.0	128.0	136.0	653.9906	19.0008	0.3	35.4998	35.5994	141.0	132.0	Systolic BP = 141 mn
140 -	129.00 mmHg		×			_	-			1 152.0 2 141.0	128.0 118.0	136.0 125.0	653.9906 653.9906	19.0008 20.0016	0.3	35.4998 35.5994	35.5994 35.4998	117.0	146.0016	Diastolic BP = 118 m 42.1 R23
120 -			~							3 141.0	118.0	125.0	653.9906	20.0016	0.4	35.5994	35.5994	141.0	135.0	42.1 H23 Systolic BP = 141 mm
180 -	Chart View - Mean BP							👻 140 mmHg		4 141.0	118.0	125.0		20.0016	0.4	35.6998	35.6998	141.0	150.0	Diastolic BP = 141 mil
160 -	1141				-		_	Mean BP		5 141.0	114.0	123.0	603.0	24.0	0.4	35.6998	35.5994	138.0	134.0016	Systolic BP = 138 mm
140 -	- 🕬 140.00 mmHg		×						10	5 141.0	114.0	123.0	603.0	24.0	0.4	35.5994	35.3994	112.0031	150.9984	Diastolic BP = 113 m
120 -										7 138.0	113.0	121.0	603.0	26.0016	0.5	35.7995	35.8999	0.0	0.0	42.1 R24
750 -	Chart View - Heart Rate							▼ 701 bpm		3 138.0	113.0	121.0	603.0	26.0016	0.5	35.5994	35.9996	162.9984	132.0	Systolic BP = 163 mr
			~					Heart Rate		9 138.0	113.0	121.0	603.0	26.0016	0.5	35.6998	35.8999	134.0016	145.0031	Diastolic BP = 134 m
700 ·	🌃 700.99 bpm		~							0 163.0	134.0	143.0		21.0	0.4	35.6998	35.6998	0.0	0.0	42.1 R25
650 ·										1 163.0 2 163.0	134.0 134.0	143.0 143.0		21.0 21.0	0.4	35.7995 35.9996	35.8999 35.8999	159.0 129.0	138.0 151.9969	Systolic BP = 159 mm
60 -								💌 38 μL		3 159.0	130.0	139.0	603.0	20.0016	0.4	35.8999	35.3999	134.0016	134.0016	Diastolic BP = 130 m Systolic BP = 134 mr
50 -								Tail Volume		4 159.0	130.0	139.0		20.0016	0.3	35.8999	35.2997	119.0016	137.0016	42.1 R26
40 -			×					_		5 159.0	130.0	139.0	603.0	20.0016	0.3	35.7995	35.2997	108.0	149.0016	Diastolic BP = 109 m
30 -										5 134.0	109.0	117.0	689.9906	22.0008	0.4	35.8999	35.2	0.0	0.0	42.1 R27
1.5 -								▼ 0.6 mL/min	6 11	7 134.0	109.0	117.0	689.9906	22.0008	0.4	35.9996	34.9999	168.0	103.0031	Systolic BP = 168 mm
								Flow	11	3 134.0	109.0	117.0	689.9906	22.0008	0.4	36.0999	35.2997	145.0031	112.0031	Diastolic BP = 146 m
1.0 ·					_			TIOW		9 168.0	146.0	153.0	689.9906	14.0016	0.3	35.7995	34.6995	216.0	146.0016	42.1 R28
0.5 -			×							0 168.0	146.0	153.0	689.9906	14.0016	0.3	35.7995	34.4994	138.0	132.0	Systolic BP = 138 mm
40 -								▼ 36.6 °C		1 168.0	146.0	153.0	689.9906	14.0016	0.3	35.7995	34.5998	114.0	148.0031	Diastolic BP = 114 m
38 -								Pad Temp'		2 138.0	114.0	122.0		24.0 24.0	0.5	35.6998	34.3998	0.0	0.0	42.1 R29
36 -			-*					Pad lemp	140	3 138.0 4 138.0	114.0 114.0	122.0		24.0	0.5	35.7995 35.7995	35.2997 35.2997	142.0031 124.0031	126.0 142.0031	Systolic BP = 142 mr Diastolic BP = 124 m
34 -										5 142.0	124.0	130.0		26.0016	0.6	35.8999	35.0996	0.0	0.0	42.1 R30
40 -						_		▼ 38.0 °C		5 153.0	119.0	130.0		8.0016	0.1	35.2997	37.0996	0.0	0.0	42.2 R1
38 -			V						12	7 153.0	119.0	130.0	689,9906	8.0016	0.1	35.5994	36.9999	166.9969	140.0016	Systolic BP = 167 mr
36.			A					Animal Temp		3 153.0	119.0	130.0	689.9906	8.0016	0.1	35.5994	37.2996	128.0016	156.9984	Diastolic BP = 129 m
34 -									12	9 167.0	129.0	141.0	689.9906	28.0008	0.3	35.6998	37.2996	0.0	0.0	42.2 R2
-										167.0	129.0	141.0	689.9906	28.0008	0.3	35.7995	37.0996	171.9984	136.0031	Systolic BP = 172 mm
200 ·				+N	N			0 mmHg		1 167.0	129.0	141.0	689.9906	28.0008	0.3	35.6998	37.0996	142.0031	151.9969	Diastolic BP = 141 m
100 -								O-Cuff		2 172.0	141.0	151.0		27.0	0.4	35.7995	37.2996	0.0	0.0	42.2 R3
							\mathbf{N}			3 172.0	141.0	151.0		27.0	0.4	35.7995	37.4	150.9984	140.0016	Systolic BP = 151 mm
0.			×						40	4 172.0 5 151.0	141.0 133.0	151.0 139.0		27.0 24.0	0.4	35.6998 35.9996	37.4 37.4997	132.0	151.9969	Diastolic BP = 133 m 42.2 R4
200 ·		18~	18~	8	18~	{e	~	te v 0 mmHg		5 151.0 5 151.0	133.0	139.0		24.0	0.4	35.9996	37.4997	0.0 148.0031	135.0	42.2 H4 Systolic BP = 148 mr
100 -	Diastolic Diastolic Diastolic	R20_	astolic R21	Diastolic 2 R.22	Diastolic BP	2 R23		💐 📕 VPR		7 151.0	133.0	139.0		24.0	0.4	35.8999	37.8998	127.0031	150.9984	Diastolic BP = 148 mr
	181 42.5 K18 191 181 45.5 K18 191 181 191 191 191 191 191 191 191 191	2 Dia	2 B		Dias			22K		3 148.0	127.0	139.0	689.9906	26.0016	0.4	35.9996	37.5996	0.0	0.0	42.2 R5
0 -	178 4 4 181 4	184 🖓	187 - 2	190 🖓	193		96			9 148.0	127.0	134.0	689.9906	26.0016	0.5	35.9996	37.8998	150.0	124.0031	Systolic BP = 150 mm
	179 14:00 182	185 1	5:00 188	16: 191		194 7:00		👔 🚟 🕨 Sta		1										

CODA® NIBP Chart and Data Pad View in LabChart

Automatic streaming of your NIBP data into LabChart

The CODA[®] Monitor Device Enabler included in each Set allows the ADInstruments CODA[®] Monitor to stream noninvasive blood pressure data directly into LabChart for advanced data recording and analysis.

- Coordinate sampling from up to three CODA[®] Monitors
- Automatically detect and calculate systolic, diastolic, mean blood pressure & heart rate
- Powerful and comprehensive range of analysis tools to analyze, extract and manipulate data as needed

LabChart data analysis software provides a platform for multiple data recording devices to work together, allowing you to acquire signals from simultaneous sources and apply advanced calculations as your experiment unfolds.

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Set Accessories

Sets can be expanded with additional tail cuffs to cater to different animal sizes and species (mouse or rat).

For studies on conscious animals, specialized cylindrical rodent holders featuring an adjustable nose piece are also available to safely secure animals during experimentation.



Additional VPR Cuff Sensors and Occlusion Cuffs (XS - XL)

Mouse holders (S, M, L) and rat holders (S, M, L, XL)



ADInstruments equipment is used in the **TOP 100 INSTITUTIONS** for Life Science worldwide and is cited in more than **30,000** peer-reviewed papers.

Kent Scientific

Kent Scientific are world leaders in NIBP (CODA®) monitoring with over 30 years of experience providing medical and research scientists with innovative solutions for achieving fast, consistent, and accurate results.

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