

T400-Series Surgical Protocol

Rat Ascending Aorta: Chronic Blood Flow Measurement (Right Thoracotomy-Back Exit Probe)

APPLICATION BASICS

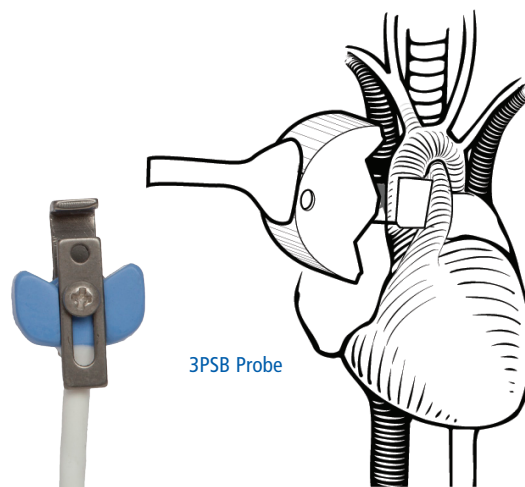
Site:	Ascending Aorta
Species:	Rat
Body Weight:	325-400 grams
Duration:	Chronic
Vessel Diameter:	2.8 mm

PROBE

Size:	3 mm
Reflector:	L with sliding cover
Connector:	4-pin
Cable Length:	12 cm
Catalog #:	MC-3PSB-LS-WC12-CM4S-GC

FLOWMETER

TS420 Perivascular Module



Right Thoracotomy Using Back Exit Flowprobe

Proper stabilization and orientation of the Probe cable is essential to keep the Probe in position on the ascending aorta and to avoid the Probe twisting on the vessel during closure and exteriorization of the connector to the back.

Anesthetize the rat with sodium pentobarbital (50 mg/kg i.p.) and ventilate mechanically. Perform a right thoracotomy between the second and third ribs. Isolate the ascending aorta and clear of adipose and connective tissue. Position a 3 mm PS-Series back cable exit Probe around the aorta as close to the heart as possible. Pack the space between the body of the Probe and the aorta with surgical sponge (Mericel). Pass the cable from the Probe through the thoracotomy and tunnel it subcutaneously to the top of the skull.

Close the thoracotomy, suture the muscle layers and reduce the pneumothorax. Affix the Probe connector to the top of the skull with a skin button (AAPC104) and dental acrylic. Suture the wounds and treat with a topical antibiotic. Administer a suspension containing ampicillin (10 mg) subcutaneously.

ACKNOWLEDGEMENT

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REFERENCES

Dundore RL, Habeeb PG, Pratt PF, Becker LT, Clas DF, Buchholz RA, "Differential Hemodynamic Responses to Selective Inhibitors of Cyclic Nucleotide Phosphodiesterases in Conscious Rats," J of Cardiovasc Pharm 1992; 19: 937-44.