CUSTOM BIO MICRO CUVETTE SELECTION TABLE

Below you will find a custom selector guide with our most popular materials for Bio Micro Cuvettes. The selector guide will walk you through the construction of a cuvette that's right for your application. The finished cuvette may be use with ALine's universal adapter, the universal adapter fits most standard 1cm x 1cm cuvette holders.

Applications: Absorbance , Transmission, Fluorescence, microvolume sampling, bead retention, cell culture and analysis.

Typical Instruments: Spectrophotometers, Fluorometers, Microscopes

"BUILD YOUR OWN CUVETTE"

CHOICE OF WINDOW MATERIAL:

A	cyclic olefin film, 50 micron	Advantages: Low fluorescence background, low birefringence, biocompatible, transparent to 220 to 1200 nm, flow rates 1 uL/min to 200 µL/min.
B	cast acrylic, 0.5 mm	Advantages: Low fluorescence background, transparent to 350 nm, biocompatible, excellent optical clarity, better choice for high flow rates (>200 µL/min.)
C	polystyrene, 50 micron	Advantages: best choice for adherent cell culture where high magnification is not required.
D	cyclic olefin, 1 mm	Advantage: same thickness as a glass slide, very biocompatible, optical quality material, that is UV to IR transparent.

CHOICE OF ADHESIVE:

E	acrylic adhesive, 25 micron	Advantages: good biocompatibility, resistant to alcohols, base and acid. Bonds well to glass
F	silicone adhesive, 50 micron	Advantages: solvent resistant to organics such as toluene, and hexane. Excellent biocompatibility, bonds well to glass.

CHOICE OF BODY MATERIALS & THICKNESS:

Fluorescence Applications:	
G	black acrylic; 1.5 mm; volume 100 µL
H	black delrin: 0.75 mm; volume 50 µL
I	Black polycarbonate: .25 mm: vol. approx. 15 µL

* at 0.5 mm and below, the cuvette is supported on a thicker layer of 0.75 mm acrylic.

listed measurements are pathlength(mm) & volume(µL)

Absorbance Applications:	
J	clear acrylic: 2.0 mm: volume approx. 125 µL
K	clear acrylic: 1.5 mm: volume approx. 100 µL
L	clear acrylic: 1.0 mm: volume approx. 75 µL
M	clear acrylic: 0.75 mm: volume approx. 50 µL
N*	clear acrylic: 0.5mm: volume approx. 25 µL
O*	clear PET: 0.250 mm: volume approx. 12 µL
P*	clear PET: 0.100 mm: volume approx. 7 µL
Q*	clear PET: 0.050 mm: volume approx. 3 µL

CHOICE OF PORT AND LOCATION**:

R	Pipettor interface for convenient filling with standard 20 to 200 µL pipettor, can fill and aspirate for multiple uses.
S	Hose barb for 1mm to 1/16” ID tubing such as tygon, silicone, or pharmed, for continuous flow experiments
T	Custom tubing interface 1/16” tube stubs in PEEK with IDs ranging from 0.005” to 0.030”
U	Tubing connection on 12” of 1/16 OD, 0.030” ID FEP tubing, with a ¼- 20 threaded port connection from DIBA

** Port can be located either on the opposite sides or same side of the cuvette.
select port side when filling out the order form

CHOICE OF MEMBRANE AND LOCATION:

Membranes, if required, may be placed in the light path or located downstream or upstream of the window.
Examples are shown on the Custom FluoroVette page.

V	For membranes in the light path
W	For membranes outside of the light path

CHOICE OF MEMBRANE MATERIAL:

X1	0.2 µm nylon
X2	0.45 µm nylon

CHOICE OF MESH FOR BEAD RETENTION:

Y1	3 micron polyester mesh
Y2	10 micron polyester mesh

ORDERING
Please use ALine's order form to place an order or contact one of our support reps. phone:310-707-8575 email: info@alineinc.com

Minimum order without membranes: 30 custom cuvettes (3 boxes of 10) priced at $600.00
Minimum order with membranes: 20 custom cuvettes (2 boxes of 10) priced at $600.00
Aline will provide Free of charge: machine setup, configuration, tooling
Lead time for custom orders: approx. 3 weeks, call for expedite orders
Discounts available for larger orders