

Neuroscience Cannulas

For *in vivo* investigation of rodents

Features

- Exceptional Quality
- Best Prices
- Rapid Order Response

Benefits

- Beveled inside and out and polished to remove burrs and ensure that the inside diameter is perfectly cylindrical. This limits trauma to tissue and ensures smooth operation.
- Exceptional quality at the best prices.

Applications

- Drug administration
- Optogenetics

These cannulas for neuroscience study and pre-clinical research includes an entire range of cannula options, including the Guide Cannula, the Internal Cannula and the Dummy Cannula (cap).

Guide Cannulas



Gauge	OD	ID
22	0.64	0.46
24	0.56	0.40
26	0.48	0.32

The Guide Cannula is a surgical grade, stainless steel tube that is implanted into a rodent's skull and cemented into place using dental cement and screws. It guides the Internal Cannula to the specific injection site.

Internal Cannula



Gauge	OD	ID
22	0.41	0.26
24	0.36	0.21
26	0.30	0.16

Insert the Internal Cannula into the Guide Cannula to sample or inject fluid.

Dummy Cannula

The Dummy Cannula has a stainless steel wire core, and it is placed in the Guide Cannula when the Internal Cannula is removed. It seals the opening and prevents tissue from entering the bottom of the Guide Cannula. The Dummy Cannula is threaded to securely tighten it so that the animal will not unscrew it while grooming. Note that the DUM26 cap is used for the 24ga cannulas also.



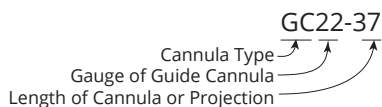
Ordering

Order the Guide Cannulas based on the gauge and length from the base and the Internal or Dummy Cannulas based on the length of the Guide Cannula and the projection from the Guide Cannula tip.

Understanding Part Numbers

Cannula Type

- GC—Guide Cannula
- INC—Internal Cannula
- DUMC—Dummy Cannula



Gauge—Choose the gauge of the Guide Cannula to be used, even if you are ordering an Internal or Dummy Cannula. Choices include 22, 24 and 26 gauge.

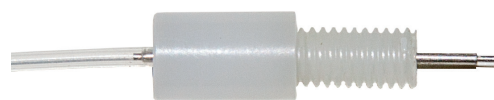
Length—Guide Cannulas can be ordered in lengths from 1.0–9.9 mm. Length can be specified to 0.1 mm, with a tolerance of ± 0.07 mm. For example, a **GC24-60** is a 24ga. cannula that is 6.0 mm long.

For other cannulas, the length is determined by the desired projection length and the guide cannula length. The projection can extend beyond the tip of the Guide Cannula up to 1.0 mm.

$$DUMC\ Length = GC\ Length + Projection$$



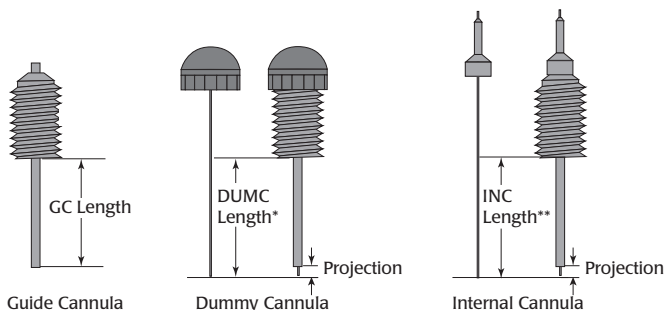
Cannula assembly: fixing screw, internal cannula with attached tubing, and guide cannula.



Internal cannula secured with fixing screw.

$$INC\ Length = GC\ Length + Projection$$

For example, for a Dummy Cannula flush with the end of a 26ga Guide Cannula that is 6.0 mm long, order a **DUMC26-60**. For an internal cannula that projects 0.5 mm beyond the 6.0 mm Guide Cannula (6.5 mm), order an **INC26-65**.



* DUMC Length = GC Length + Projection. If the cap is screwed on too tightly, the projection will be longer than expected.
** INC Length = GC Length + Projection. Internal cannula mounts flush and does not screw into place.

ORDERING INFORMATION

Cannulas

GC22-X*	Guide Cannula, 22ga, X.0 mm
INC22-X*	Internal Cannula, 22ga, X.0 mm
DUMC22-X*	Dummy Cannula, 22ga, X.0 mm
GC24-X*	Guide Cannula, 24ga, X.0 mm
INC24-X*	Internal Cannula, 24ga, X.0 mm
GC26-X*	Guide Cannula, 26ga, X.0 mm
INC26-X*	Internal Cannula, 26ga, X.0 mm
DUMC26-X*	Dummy Cannula, 26ga, X.0 mm

* X indicates the length of the cannula or projection. See Understanding Part Numbers.

Flexible PE Tubing

504278	0.25 mm ID, 0.5 mm OD, 1 m long
504279	0.42mm ID, 0.85 mm OD, 1 m long
504280	0.6 mm ID, 1.1 mm OD, 1 m long

Miscellaneous Accessories

504281	Fixing Screw-connect INC & GC
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Flexible PE tubing is recommended to connect to Internal Cannula (INC) only, NOT Guide Cannula (GC) or Dummy Cap (DUMC).

504278 matches **INC26-XX**

504279 matches **INC24-XX**

504280 matches **INC22-XX**