



# INFORMATION SHEET

## TAPEWORMS

### CLASSIFICATION

Class: Cestoda (Cestoidea)

Phylum: Platyhelminthes

Family: Hymenolepididae

Genus: *Rodentolepis*, *Hymenolepis*

#### *Rodentolepis nana*

- “dwarf tapeworm”
- Direct; Indirect life cycle; autoreinfection
- Adult worm: 25-40 mm long
- Ova (egg): 50 x 40 µm, oval and transparent
- Resides in small intestine (ileum)

#### *Hymenolepis diminuta*

- Indirect life cycle
- Adult worm: 20-60 cm long by 3-4 mm wide
- Ova: 70 µm, spherical and transparent with yellow tint
- Resides in anterior small intestine

#### *Rodentolepis microstoma*

- Indirect life cycle
- Adult worm: 8-205 mm long by 2mm wide
- Ova: 85 x 60 µm, oval and transparent
- Resides in bile duct, duodenum, pancreatic ducts and/or mesenteric lymph nodes

### PREVALENCE

Tapeworm infections are rare in modern mouse facilities.

### DIAGNOSIS

Direct microscopy

### DISEASE/CLINICAL SIGNS

Tapeworms feed on the interstitial secretions of its host, thus in heavy infections mice may demonstrate diarrhoea, weight loss and growth retardation.

# INFORMATION SHEET



**COMPATH**  
Your Partner in Research Facility Health Monitoring

## STRAINS

*R. nana*, *H. diminuta* and *R. microstoma* are the most common tapeworms infecting mice, rats and hamsters. All three tapeworms are considered zoonotic.

## TRANSMISSION

Transmission is via the faecal-oral route.

## INTERFERENCE WITH RESEARCH

Antigenic stimulation may result in the animal and thus can interfere with experimental investigations.

## DURABILITY

Resistant to:

- *R. nana* eggs remain infective for 11 days in the environment

Susceptible to:

- Chemotherapeutic treatment

## CONTROL

Maintain regular health monitoring of supplier sub-populations and strict protocols for barrier colonies. Ensure animal feed is free of grain-eating insects (flour beetles) and other arthropods (fleas and moths etc).

## POST INFECTION

Animals can be treated with chemotherapeutics or rederivation and embryo transfer are recommended. Maintain strict protocols for barrier colonies.

## BIBLIOGRAPHY

Fox, J.G., Barthold, S.W., Davisson, M.T., Newcomer, C.E., Quimby, F.W., Smith, A.L. 2007. The Mouse in Biomedical Research, Second Edition, Volume Two, pp. 524-525

Herrlein H.G., et al, Institute of Animal Resources, 1954. Handbook of Laboratory Animals, pp. 8

Suckow, M.A., Stevens, K.A., Wilson R.P., The Laboratory Rabbit, Guinea Pig, Hamster and Other Rodents, American College of Laboratory Animal Medicine Series, Academic Press, 2012, pp 854

Percy D.H., Barthold S.W., Pathology of Laboratory Rodents and Rabbits, Third Edition, Blackwell Publishing, 2007