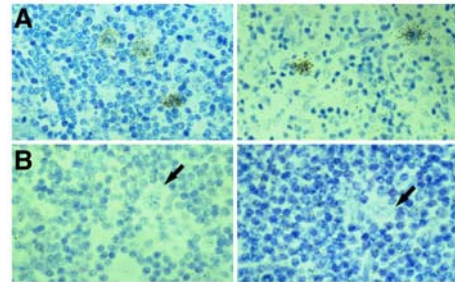


ZOO332H1S
Supplementary on Techniques
(and Electric Ray)

Examples of Autoradiography - *in situ*
 Hybridization using ³³P-labelled RNA probes

1

Hodgkin's Lymphoma – Reed-Sternberg Cells
+ve for IL13 Transcript (mRNA)



4

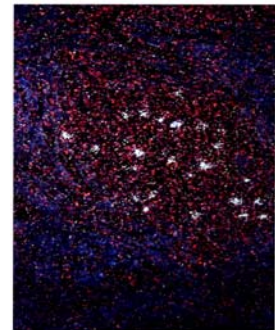
Note:

- tissue sections – RNase free
- make labelled antisense RNA probe from DNA template; sense probe used as control
- applied antisense probe hybridizes to single strand mRNA; sense probe should not
- washes
- dry and apply very thin coat of liquid photographic emulsion (in the dark of course)
- let incubate 3 days to 2 weeks, during which time radioactive decay (beta particles) from ³³P react with emulsion and cause silver grains (microscopic size) to deposit above cells where probe has hybridized

2

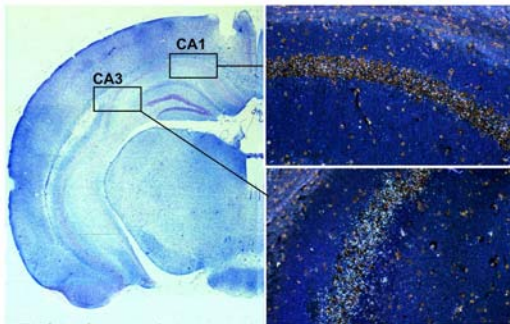
³³P-Autoradiography of Hodgkin's Lymphoma
Dark Field Microscopy

Reed-Sternberg Cells
 (+ve for IL13 mRNA)



5

X-Gene – WT Expression
Mouse Brain Hippocampus

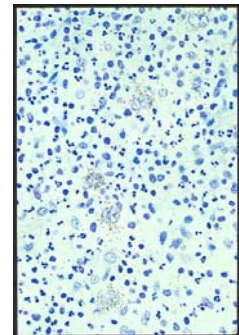


3

³³P-Autoradiography of Hodgkin's Lymphoma
Bright Field Microscopy

Toluidine Blue counterstain

Reed-Sternberg Cells
 (+ve for IL13 mRNA)



6

Torpedo Ray - (*Torpedo californica*) are identifiable by their flat gray bodies and black spots. Interestingly these animals catch their prey by stunning them with a jolt!(photo: Daniel Gotshall)



http://www.sanctuaries.nos.noaa.gov/pgallery/pgchannel/living/living_30.html

Torpedo Ray (*Torpedo californica*)



8