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APPENDICES

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APPENDIX A

Chemicals

Amoxicillin (Duphamox[®] LA) was purchased from Duphar B. V. Weesp, Holland. Azaperone (Stresnil[®]) was purchased from Janssen Pharmaceutica, Belgium. Buprenorphine (Temgesic[®]) was purchased from Reckitt & Colman Product Ltd., Britain. Hematoxylin crystal of analytical reagent grade from Fluka, Switzerland. Lithium carbonate of analytical reagent grade from J. T. Baker, J. T. Baker chemical Co., U.S.A. Methylparaben and Propylparaben were purchased from S. Tong chemicals Co., Ltd., Bangkok. Paraffin (Paraplast[®]) was purchased from Sherwood medical Co., U.S.A.. Pentobarbital sodium (Nembutal[®]) was purchased from Sanofi, France. Propylene glycol of analytical reagent grade was purchased from Sigma chemical Co., Mo., U.S.A. Povidone iodine (Betadine[®] solution) was purchased from Mundipharma B.V., Netherlands. Sodium hexametaphosphate, citric acid, potassium phosphate monobasic, sodium phosphate dibasic (anhydrous) all of analytical reagent grade from CARLO. ERBA., Germany. Sodium hydrogen carbonate, absolute ethanol, hydrochloric acid, kieselguhr, calcium chloride dihydrate cryst, aluminium potassium sulfate dodecahydrate, mercuric oxide (red), and eosin Y, all of analytical reagent grade from Merck, Germany. Xylene was analytical reagent grade from BDH , England.

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APPENDIX B

Reagents

1. 10% neutral buffer formalin solution. In 1 L of solution composed of 100 ml formalin (approximately 40% formaldehyde gas in water called *formalin*), distilled water 900 ml, sodium phosphate 4 g and sodium phosphate dibasic (anhydrous) 6.5 g (Luna, 1968).
2. Eosin stain solution
 - 2.1 Eosin stock solution was prepared by dissolving 1 g of eosin Y in 20 ml distilled water, and adding 80 ml 95% alcohol.
 - 2.2 Eosin working solution was prepared by mixing eosin stock solution 1 part and 80% alcohol 3 parts. To 100 ml of the stain solution added glacial acetic acid 0.5 ml and stirred.

3. Harris hematoxylin stain solution

Harris hematoxylin solution was prepared by dissolving 5 g of hematoxylin crystal in absolute alcohol 50 ml. Aluminium potassium sulfate dodecahydrate 100 g was added in distilled water 100 ml and heated to dissolve. The two solutions were mixed and boiled as rapidly as possible less than 1 min boiled with continuously stirred, removed from heat and added 2.5 g of mercuric oxide (red) slowly, reheated to a simmer and removed from heat immediately after the color of solution became dark purple and the solution was cool in a basin of cold water. In 100 ml of the solution 2-4 ml of glacial acetic acid was added to increase the precision of the nuclear stain. The solution was filtered before use.

4. Paraben solution was prepared by mixing methylparaben and propylparaben to make a solution contained 2% methylparaben and 0.2% propylparaben, mixed homogeneously.

5. Saturated calcium chloride was prepared by slowly added 55.55 g of $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$ in 100 ml deionized water. The reagent was heated and continuously stirred until saturated.
6. Saturated lithium carbonate was prepared by dissolving 1 g lithium carbonate in 100 ml distilled water.



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APPENDIX C

Equipments

Analytical-balance (Saturious model A200S, Germany)
Autoclave (Model HA-300MD, HIRAYA manufacturing, Crop., Japan)
Automatic tissue processor (Reichert-Jung, Histokinette 2000, Germany)
Blender (Moulinex 327, Spain)
Digital camera (Kodak, series 4900)
Filter paper (Whatman..No. 93, Whatman international Ltd., England)
Hammermill from U.S.A.
Homoginizer (Heidolph DIAX 900, Germany)
Hot air oven (Mettmert, Germany)
Laminar air flow (ISSCO, model BV2225, Thailand)
Light microscope (Bausch & Lomb, Japan)
Microtome (Leica, model 820, Germany)
pH meter (MP230, Mettler Toledo, Switzerland)
pH paper (pH 0-14) was obtained from Merck, Germany.
Rotary evaporator (BUCHI Rotavapor R-114, Water bath B-480, Japan)
Sonicator (Bransonic 42, Branson cleansing equipment company, U.S.A.)
Stirrer (KMO2, Janke & Kenkel GMBA & Co. KG)
Suction apparatus (Buchner funnel, Aspirator, SIBATA circulating aspirator WJ-20, Japan)
Tensometer (Instron[®] 5565, England)
Thickness guage (0-10 mm.)
Viscometer (BROOKFIELD, model LVDV-I+, BROOKFIELD ENGINEERING LABORATORY, INC., U.S.A.)
Water bath (KANDO, England)

VITA

Miss Oranuch Nakchat was born on January 13, 1974 in Surin, Thailand. She graduated with Bachelor Degree of Science in 1996 from Department of health Science, Faculty of Science and Technology, Thammasat University. Since 1996 to 1999, she worked at Advance Agro Public Co., Ltd. in the position of environmental analyst. Additionally, she worked in the position of customer service at Santa factory Co., Ltd. in 2000.



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