Ain Shams University
Faculty of Pharmacy
Microbiology & Immunology Dept.

"A Study on Bacterial Phospholipases C"

A Thesis

Submitted in Partial Fulfillment of the Requirments
for the

Master's Degree

In
Pharmaceutical Sciences
(Microbiology and Immunology)

By

Nooran Mohamed Sherif Elleboudy

Bachelor of Pharmaceutical Sciences,
Faculty of Pharmacy, Ain Shams University, 2003

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Approval Sheet

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Date: 18 July 2009

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يا ربى لك الحمد كما ينبغى لجلال وجهك ولعظيم سلطانك

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Nooran Sherif Elleboudy

List of Abbreviations

Abbreviation	Definition
AA	Arachidonic acid
ADP	Adenosine diphosphate
ATCC	American Type Culture Collection
BSA	Bovine serum albumin
BTC medium	Basal Tissue Culture medium
CF	Cystic fibrosis
CFNP	Cystic fibrosis nasal polyp
CFU	Colony Forming Unit
Cho	Choline
Cp-PLC	*Clostridium perfringens* PLC
Cpa	*Clostridium perfringens* alpha toxin
DAG	Diacylglycerol
EDTA	Ethylene Diamine Tetra-acetic Acid
FA	Fatty Acid
FFA	Free Fatty Acid
GPI	Glycan-phosphatidylinositol
GP-PLCs	Gram-positive phospholipases C
GTE buffer	Glucose-Tris-EDTA buffer
Ip_3	Inositol 1,4,5-trisphosphate
LB broth	Luria Bertani broth
LPC	lysophosphatidylcholine
LPG	lysophosphatidylglycerol
LPI	lysophosphatidylinositol
LPTA	Lysophospholipasetransacylase
Lyso-PL	Lysophospholipase
MDTs	Membrane damaging toxins
NHNP	Normal healthy nasal polyp
NPPC	p-Nitrophenylphosphorylcholine
PA	Phosphatidic Acid
PAF	Platelet-activating factor
PBS	Phosphate Buffered Saline
PC	Phosphatidylcholine
PC-PLC	Phosphatidylcholine-preferring Phospholipase C
PE	Phosphatidylethanolamine

Abbreviation	Definition
PG	Phosphatidylglycerol
PI	Phosphatidylinositol
Pi	Inorganic phosphate
PIP	phosphatidylinositol 4,5-bisphosphate
PI-PLC	Phosphoinositide-specifc phospholipases C
PKC	Protein kinase C
PL	Phospholipase
PLA_1	Phospholipase A_1
PLA_2	Phospholipase A_2
PLB	Phospholipase B
PLC	Phospholipase C
PLC-H	Hemolytic PLC
PLC-N	Non-hemolytic PLC
PLD	Phospholipase D
PPP	Platelet poor plasma
PRP	Platelet rich plasma
PS	Phosphatidylserine
Pz	Phospholipase activity
RBCs	Red blood cells
SDS	Sodium Dodecyl Sulfate
SM	Sphingomyelin
SMase	Sphingomyelinase
TAE buffer	Tris-Acetate-EDTA buffer
TE buffer	Tris-EDTA-buffer
TES	Trace Element Solution
TMM	Tris Minimal Medium
TSI	Triple Sugar Iron
VP	Vogues Proskaur

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