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LIST OF ABBREVIATIONS

%EE	The Percentages of Entrapment Efficiency
μg	Microgram
μL	Microliter
AIs	Aromatase inhibitors
ANOVA	Analysis of variance
AR grade	Analytical grade
ASD	Androstenedione
CDs Q	Cyclodextrins
CMC	Critical Micelle Concentration
CS-P127	Chrysin loaded pluronic F-127
CS-P68	Chrysin loaded pluronic F-68
CYP19	Aromatase
CYP450	NADPH - Cytochrom P450
DBF	Dibenzylfluorescein
DMEM	Dulbecco's Modified Eagle Medium
DMF	Dimethylformamide
DMSO	Dimethyl sulfoxide
^{E1} ลิสสิทธิ์	Estrone
E2	Estradiol
EDCs-Opyright	Endocrine disrupting chemicals
EDTA	Ethylenediaminetetraacetic acid S e r v e o
EMA	European Medicines Agency
ER	Endoplasmic reticulum
ER-positive	Estrogen Receptor-positive
EtOAc	Ethyl acetate
EtOH	Ethanol
FBS	Fetal bovine serum

FDA	Food and Drug Administration
FSH	Follicle-stimulating hormone
g	Gram
GA	Glycolic acid
h	Hour
H&E	Haematoxylin and eosin
HEPES	4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid
HepG2	Human hepatoma cell line
HLB	Hydrophilic-lipophilic balance
HPLC	High-performance liquid chromatography
ΗΡβCD	Hydroxypropyl-beta-cyclodextrin
Hsd20b	20β-hydroxysteroid dehydrogenase
IC ₅₀	Concentration of an inhibitor that is required for 50% inhibition
IES	The Institute for Environment and Sustainability
KCl	Potassium chloride
kDa	Kilodalton
K _m	The Michaelis constant
LA	Lactic acid
LH	Luteinizing hormone
М	Molar
MCF-7	Human breast cancer cells
mg	Milligram
MIS	Maturation inducing steroid
mLadans	Milliliter DNUABLBUOLHU
^{mM} Copyright	Millimolar Chiang Mai University
MS222	Tricaine methanesulfonate
MTT	3-(4,5-Dimethylthiazol-2-yl)-2,5-Diphenyltetrazolium Bromide
mV	Millivolt
MW	Molecular weight
MWCO	Molecular weight cut-off
NADPH	Nicotinamide adenine dinucleotide phosphate
NaOH	Sodium hydroxide

ND	Not detectable
ng	nanogram
NIEHS	The National Institute of Environmental Health Science
nm.	nanometer
PCS	Photon correlation spectroscopy
PDI	Polydispersion index
PEO	Polyethylene oxide
Ph.Eur	European Pharmacopeia
PLGA	Poly(dl-lactide-co-glycolide)
РРО	Polypropylene oxide
RT	Retention time
SD	Standard derivation
SDS-PAGE	Sodium dodecyl sulfate polyacrylamide gel electrophoresis
SEM	Scanning electron microscope
SLN S	Solid lipid nanoparticles
TEMED	Tetramethylethylenediamine
THF	Tetrahydrofuran
Tris-HCl	TRIS hydrochloride
USP/NF	United States Pharmacopoeia / National Formulary
UV	Ultraviolet
V _{max}	The maximum reaction velocity

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ข้อความแห่งการริเริ่ม

- วิธีการใหม่ในการตรวจหาสารสกัดจากพืชที่มีฤทธิ์ยับยั้งเอนไซม์อะโรมาเทส โดยใช้สารเรือง แสงร่วมกับไมโครโซมตับจากปลานิล
- วิธีการใหม่ในการเพิ่มการละลายน้ำของสารกลุ่มฟลาโวนอยด์ที่ไม่ละลายน้ำ โดยใช้ระบบพอลิ เมอริกไมเซลล์เพื่อเป็นระบบนำส่งยาไปยังเซลล์เป้าหมายในตัวปลา
- ผลิตภัณฑ์ใหม่ของสารไครซินบรรจุในพอลิเมอริกไมเซลล์ที่มีประสิทธิภาพในการชักนำให้เกิด ลักษณะเพศผู้ทั้งระดับภายนอกและระดับจุลกายวิภาคศาสตร์ของเนื้อเยื่อ



STATEMENT OF ORIGINALITY

- 1) A new method for screening aromatase inhibitory activity from plant extracts by using fluorescent dye incorporated with hepatic microsome from tilapia.
- 2) A new method for increasing solubility of insoluble flavonoids by using polymeric micelle system for delivery drug to the target cells in fish.
- 3) A new product of the chrysin loaded polymeric micelle system that effect on fish masculinization both gross appearance and histological level.



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