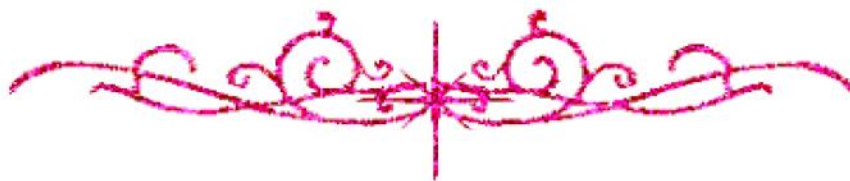


بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



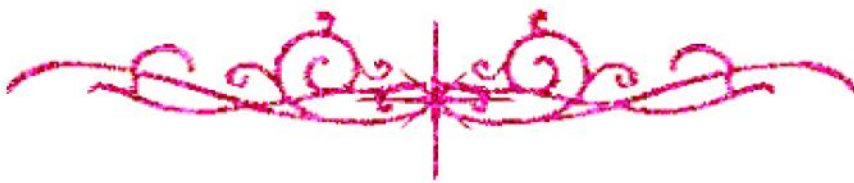
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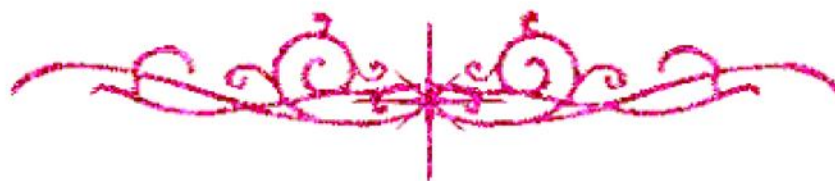


بعض الوثائق الأصلية تالفة





بالرسالة صفحات
لم ترد بالأصل



Instrumental analytical techniques for quality assessment of biotechnology- derived monoclonal antibodies

A Thesis presented for the Doctor of philosophy degree in Pharmaceutical
Sciences

"Analytical Chemistry"

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2020**

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

إنا فتحنا لك فتحا مبينا ليغفر لك الله ما تقدم
من ذنبك وما تأخر ويتم نعمته عليك ويهديك
صراطا مستقيما وينصرك الله نصرا عزيزا

(الفتح ١-٣)

صَدَقَ اللهُ الْعَظِيمُ

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Lamia Anwar Hassan
2020

List of Abbreviations

CDRs	Complementarity-determining regions
CZE	Capillary zone electrophoresis
CEX	Cation Exchange Chromatography
DLS	Dynamic light scattering
EC50	Half maximal effective concentration
ELISA	Enzyme Linked Immunosorbent Assay
EMA	European Medicines Agency
Fc	Fragment crystallizable
Fab	Fragment antigen-binding
FDA	Food and Drug Administration
2-PC	Two principal component
4-PL	Four Parameter Logistic
HETP	Height equivalent to a theoretical plate
HRP	Horseradish peroxidase
HMW	High Molecular weight
ICH	International conference on harmonization of technical requirements for pharmaceuticals for human use
IEX	Ion exchange chromatography
KDa	Kilo Dalton
LMW	Low Molecular Weight
mAb	Monoclonal antibody
MS	Mass spectrometry
PCA	principal component analysis
PD	Pharmacodynamics
PK	Pharmacokinetics
PM	Peptide mapping
RP-HPLC	Reversed phase high performance liquid chromatography
rpm	Revolution per minute
SDS-PAGE	Sodium dodecylsulfate-polyacrylamide gel electrophoresis
SE-HPLC	Size exclusion high performance liquid chromatography
TFA	Trifluoroacetic acid
TNF	Tumor necrosis factor
TMB	3,3',5,5'-Tetramethylbenzidine

List of amino acid abbreviations

Full Name	Abbreviation
Alanine	Ala
Arginine	Arg
Asparagine	Asn
Aspartate	Asp
Cysteine	Cys
Glutamate	Glu
Glutamine	Gln
Glycine	Gly
Histidine	His
Isoleucine	Ile
Leucine	Leu
Lysine	Lys
Methionine	Met
Phenylalanine	Phe
Proline	Pro
Serine	Ser
Threonine	Thr
Tryptophan	Trp
Tyrosine	Tyr
Valine	Val

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