



بسم الله الرحمن الرحيم

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Integrated Bioanalytical Techniques for Assessment of some Monoclonal Antibodies

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(قَدْ إِنَّ الْفَضْلَ بِيَدِ اللَّهِ

يُؤْتِيهِ مَنْ يَشَاءُ وَاللَّهُ وَاسِعٌ عَلِيمٌ)

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List of Abbreviations

4-PL	4-parameter logistics
ADCC	antibody dependent cellular cytotoxicity
BIO-INN	central administration of Biologics, innovator and clinical studies
BSA	bovine serum albumin
CD	circular dichroism
CDR	complementarity determining regions
CEX	cation exchange
CIEF	capillary isoelectric focusing
CLL	chronic lymphocytic leukemia
CZE	capillary zone electrophoresis
DAD	diode array detector
DLS	dynamic light scattering
EC50	Effective concentration
EDA	Egyptian drug authority
ELISA	Enzyme linked immunoassay
Fab	fragment antigen-binding region
Fc	fragment crystallizable region
FDA	food and drug administration
HMW	high molecular weight
HPLC	high performance liquid chromatography
HPMC	hydroxy propyl methyl cellulose
Ig	immunoglobulin
ICH	international conference of harmonization

IEX	ion exchange
immunoPET	immuno-positron emission tomography
KDa	kilodalton
LOD	limit of detection
LOQ	limit of quantitation
MALS	multi angel light scattering
mAb	monoclonal antibody
NHL	non-Hodgkin lymphoma
OD	optical density
OBZ	obintuzumab
pAb	polyclonal antibody
PDA	photo diode array
Psi	pound per square inch
PTZ	pertuzumab
RP-HPLC	reversed phase high performance liquid chromatography
RTX	rituximab
RSD	relative standard deviation
SDS-PAGE	sodium dodecyl poly acrylamide gel electrophoresis
SE-HPLC	size exclusion high performance liquid chromatography
TETA	tri ethylene tetramine
TMB	Tetramethyl benzidine
TOC	total organic carbon
WHO	world health organization

List of amino acids abbreviations

Full Name	Abbreviation (3 Letter)	Abbreviation (1 Letter)
Alanine	Ala	A
Arginine	Arg	R
Asparagine	Asn	N
Aspartate	Asp	D
Cysteine	Cys	C
Glutamate	Glu	E
Glutamine	Gln	Q
Glycine	Gly	G
Histidine	His	H
Isoleucine	Ile	I
Leucine	Leu	L
Lysine	Lys	K
Methionine	Met	M
Phenylalanine	Phe	F
Proline	Pro	P
Serine	Ser	S
Threonine	Thr	T
Tryptophane	Try	W
Tyrosine	Tyr	Y
Valine	Val	V

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