

HER2-ADC targeted proteomics panel

oM = oxidized Met, p
= phospho,
uK=ubiquitinated Lys (133 analytes)

Gene Symbol	Target protein name	UniProt ID (& link)	Modification/ Variant*
ACTA2	actin alpha 2, smooth muscle	P62736	nonmod
AKT1	RAC-alpha serine/threonine-protein kinase	P31749	nonmod
AKT1	RAC-alpha serine/threonine-protein kinase	P31749	pS473
AKT1	RAC-alpha serine/threonine-protein kinase	P31749	nonmod
AKT1	RAC-alpha serine/threonine-protein kinase	P31749	nonmod
AKT1	RAC-alpha serine/threonine-protein kinase	P31749	pT308
AKT1	RAC-alpha serine/threonine-protein kinase	P31749	nonmod
AKT2	RAC-beta serine/threonine-protein kinase	P31751	nonmod
AKT2	RAC-beta serine/threonine-protein kinase	P31751	pS474
AKT2	RAC-beta serine/threonine-protein kinase	P31751	pS474
AKT2	RAC-beta serine/threonine-protein kinase	P31751	nonmod
AKT2	RAC-beta serine/threonine-protein kinase	P31751	nonmod
AKT3	RAC-gamma serine/threonine-protein kinase	Q9Y243	nonmod
AKT3	RAC-gamma serine/threonine-protein kinase	Q9Y243	nonmod
AKT3	RAC-gamma serine/threonine-protein kinase	Q9Y243	pS472
AKT3	RAC-gamma serine/threonine-protein kinase	Q9Y243	pS472
AKT3	RAC-gamma serine/threonine-protein kinase	Q9Y243	nonmod
AKT3	RAC-gamma serine/threonine-protein kinase	Q9Y243	nonmod
ATM	Serine-protein kinase ATM	Q13315	pS2996
ATM	Serine-protein kinase ATM	Q13315	nonmod
ATM	Serine-protein kinase ATM	Q13315	pS367
ATM	Serine-protein kinase ATM	Q13315	nonmod
ATR	Serine/threonine-protein kinase ATR	Q13535	pT1989
ATR	Serine/threonine-protein kinase ATR	Q13535	nonmod
BAD	Bcl2-associated agonist of cell death	Q92934	nonmod
BRCA1	Breast cancer type 1 susceptibility protein	P38398	pS1524
BRCA1	Breast cancer type 1 susceptibility protein	P38398	nonmod
BRCA2	Breast cancer type 2 susceptibility protein	P51587	pS1680
BRCA2	Breast cancer type 2 susceptibility protein	P51587	nonmod
CCND1	G1/S-specific cyclin-D1	P24385	nonmod
CCND1	G1/S-specific cyclin-D1	P24385	nonmod
CCNE1	G1/S-specific cyclin-E1	P24864	nonmod
CD274	Programmed cell death 1 ligand 1	Q9NZQ7	nonmod
CD276	CD276 antigen	Q5ZPR3	nonmod
CDH1	Cadherin-1	P12830	nonmod
CDH1	Cadherin-1	P12830	nonmod
CDH1	Cadherin-1	P12830	nonmod
CDKN1A	Cyclin-dependent kinase inhibitor 1	P38936	nonmod
CHEK1	Serine/threonine-protein kinase Chk1	Q14757	pS317
CHEK1	Serine/threonine-protein kinase Chk1	Q14757	nonmod
EGFR	Epidermal growth factor receptor	P00533	nonmod
EGFR	Epidermal growth factor receptor	P00533	nonmod
ERBB2	Receptor tyrosine-protein kinase erbB-2	P04626	nonmod
ERBB2	Receptor tyrosine-protein kinase erbB-2	P04626	nonmod
ERBB2	Receptor tyrosine-protein kinase erbB-2	P04626	nonmod
ERBB3	Receptor tyrosine-protein kinase erbB-3	P21860	nonmod
ERBB3	Receptor tyrosine-protein kinase erbB-3	P21860	nonmod
ERBB3	Receptor tyrosine-protein kinase erbB-3	P21860	nonmod
ESR1	Estrogen receptor	P03372	nonmod
ESR1	Estrogen receptor	P03372	nonmod
FABP4	Fatty acid-binding protein, adipocyte	P15090	nonmod
FANCD2	Fanconi anemia group D2 protein	Q9BXW9	uK561
FANCD2	Fanconi anemia group D2 protein	Q9BXW9	nonmod
FBN1	Fibrillin-1 (Cleaved into: Asprosin)	P35555	nonmod
FOLR1	Folate receptor alpha	P15328	nonmod
FOLR1	Folate receptor alpha	P15328	oxM
FOLR1	Folate receptor alpha	P15328	nonmod
GAPDH	Glyceraldehyde-3-phosphate dehydrogenase	P04406	nonmod
H2AX	Histone H2AX	P16104	pS140
HBB	Hemoglobin subunit beta	P68871	nonmod
HBB	Hemoglobin subunit beta	P68871	nonmod
IL6ST	Interleukin-6 receptor subunit beta	P40189	nonmod
JUN	Transcription factor Jun	P05412	pS63
JUN	Transcription factor Jun	P05412	nonmod
KRT5	Keratin, type II cytoskeletal 5	P13647	nonmod
KRT7	Keratin, type II cytoskeletal 7	P08729	nonmod
LIG1	DNA ligase 1	P18858	nonmod

MAPK1	Mitogen-activated protein kinase 1	P28482	pT185/pY187
MAPK1	Mitogen-activated protein kinase 1	P28482	pT185
MAPK1	Mitogen-activated protein kinase 1	P28482	pY187
MAPK1	Mitogen-activated protein kinase 1	P28482	nonmod
MAPK3	Mitogen-activated protein kinase 3	P27361	nonmod
MAPK3	Mitogen-activated protein kinase 3	P27361	pT202/pY204
MAPK3	Mitogen-activated protein kinase 3	P27361	pT202
MAPK3	Mitogen-activated protein kinase 3	P27361	pY204
MAPK3	Mitogen-activated protein kinase 3	P27361	nonmod
MAPK3	Mitogen-activated protein kinase 3	P27361	nonmod
MCM6	DNA replication licensing factor MCM6	Q14566	pS762
MCM6	DNA replication licensing factor MCM6	Q14566	nonmod
MDM2	E3 ubiquitin-protein ligase Mdm2	Q00987	pS166
MDM2	E3 ubiquitin-protein ligase Mdm2	Q00987	nonmod
MKI67	Proliferation marker protein Ki-67	P46013	pT1801
MKI67	Proliferation marker protein Ki-67	P46013	nonmod
MKI67	Proliferation marker protein Ki-67	P46013	nonmod
MKI67	Proliferation marker protein Ki-67	P46013	pT2406
MLH1	DNA mismatch repair protein Mlh1	P40692	nonmod
MSH2	DNA mismatch repair protein Msh2	P43246	nonmod
MSH3	DNA mismatch repair protein Msh3	P20585	nonmod
MSH6	DNA mismatch repair protein Msh6	P52701	nonmod
NBN	Nibrin	Q60934	pS343
NBN	Nibrin	Q60934	nonmod
NUMA1	Nuclear mitotic apparatus protein 1	Q14980	pS395
PARP1	Poly [ADP-ribose] polymerase 1	P09874	pS177
PARP1	Poly [ADP-ribose] polymerase 1	P09874	nonmod
PARP2	Poly [ADP-ribose] polymerase 2	Q9UGN5	nonmod
PCNA	Proliferating cell nuclear antigen	P12004	nonmod
PCNA	Proliferating cell nuclear antigen	P12004	uK164
PECAM1	Platelet endothelial cell adhesion molecule	P16284	nonmod
PGR	Progesterone receptor	P06401	nonmod
PGR	Progesterone receptor	P06401	nonmod
PIK3CA	Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit alpha isoform	P42336	nonmod
PLIN4	Perilipin-4	Q96Q06	nonmod
PMS1	PMS1 protein homolog 1	P54277	nonmod
PTEN	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN	P60484	nonmod
PTEN	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN	P60484	nonmod
PTEN	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN	P60484	nonmod
PTEN	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN	P60484	nonmod
PTEN	Phosphatidylinositol 3,4,5-trisphosphate 3-phosphatase and dual-specificity protein phosphatase PTEN	P60484	nonmod
PTPRC	Receptor-type tyrosine-protein phosphatase C	P08575	nonmod
PTPRC	Receptor-type tyrosine-protein phosphatase C	P08575	nonmod
RAD50	DNA repair protein RAD50	Q92878	pS635
RAD50	DNA repair protein RAD50	Q92878	nonmod
RB1	Retinoblastoma-associated protein	P06400	pS807
RB1	Retinoblastoma-associated protein	P06400	nonmod
SAAL1	Protein SAAL1	Q96ER3	pS237
SAAL1	Protein SAAL1	Q96ER3	nonmod
SRC	Proto-oncogene tyrosine-protein kinase Src	P12931	nonmod
SRC	Proto-oncogene tyrosine-protein kinase Src	P12931	nonmod
TOP1	DNA topoisomerase 1	P11387	nonmod
TP53	Cellular tumor antigen p53	P04637	pS315
TP53	Cellular tumor antigen p53	P04637	nonmod
TP53	Cellular tumor antigen p53	P04637	nonmod
TP53BP1	TP53-binding protein 1	Q12888	pT543pS552
TP53BP1	TP53-binding protein 1	Q12888	pT543
TP53BP1	TP53-binding protein 1	Q12888	pS552
TP53BP1	TP53-binding protein 1	Q12888	nonmod
TP53BP1	TP53-binding protein 1	Q12888	nonmod
TUBB	Tubulin beta chain	P07437	nonmod
UTP14A	U3 small nucleolar RNA-associated protein 14 homolog A	Q9BVJ6	pS453
UTP14A	U3 small nucleolar RNA-associated protein 14 homolog A	Q9BVJ6	nonmod
VCAN	Versican core protein	P13611	nonmod
VTCN1	V-set domain-containing T-cell activation inhibitor 1	Q7Z7D3	nonmod

References:

1) Kennedy JJ, Whiteaker JR, Kennedy LC, Bosch DE, Lerch ML, Schoenherr RM, Zhao L, Lin C, Chowdhury S, Kilgore MR, Allison KH, Wang P, Hoofnagle AN, Baird GS, Paulovich AG. Quantification of Human Epidermal Growth Factor Receptor 2 by Immunopeptide Enrichment and Targeted Mass Spectrometry in Formalin-Fixed Paraffin-Embedded and Frozen Breast Cancer Tissues. *Clinical Chemistry* (2021) 67(7):1008-1018. doi: 10.1093/clinchem/hvab047. PMID:34136904