

PolyQuant's CHOcoCAT Kit provides 86 reference peptides for absolute protein quantification of 29 common and critical CHO-specific host cell proteins (HCP). The peptides are grouped according to abundance in CHO cells onto two individual, completely ¹⁵N labelled, QconCAT proteins.

The QconCATs are optimized for digestion with trypsin or tryptic-like digestion (cleavage after Arg and Lys). Other proteases will not generate suitable reference peptides.

Kit content (for 50 applications):

Component	Amount (mol)
PQ-CHO-1	50 pmol
PQ-CHO-2	50 pmol

Reconstitution and application

The QconCATs are soluble in water, ABC buffer and denaturing buffers containing urea or guanidinium-hydrochloride.

We recommend dissolving the content of the vial by adding 500 µl 50 mM ABC buffer pH 8.0, followed by 5 min incubation at RT and briefly mixing (e.g. Vortex) or pipetting up and down (10x).

Sample preparation

QconCATs are added directly to your analyte sample prior to sample preparation (reduction, alkylation, digestion). We recommend to add ≥ 10 nM of QconCAT to your analyte and proceed with your routine sample preparation procedure.

MS measurement

The required amount of reference standard depends on instrumentation. For LC systems used in nanoFlow (< 1 µl/min), we recommend using 500 fmol QconCAT on column per injection as a starting point.

Protein list:

QconCAT ID	Protein	Gene	Uniprot	No of peptides
PQ-CHO-1	Peroxiredoxin-1	PRDX1	Q9JKY1	3
PQ-CHO-1	Phospholipase B-like	PLBL2	G3I6T1	3
PQ-CHO-1	Procollagen-lysine,2-oxoglutarate 5-dioxygenase 1	PLOD1	G3IIE7	3
PQ-CHO-1	Protein disulfide-isomerase	PDI	Q8R4U2	3
PQ-CHO-1	Protein S100	S100A6	G3HC31	3
PQ-CHO-1	Pyruvate kinase	PK	G3H3Q1	3
PQ-CHO-1	Serine protease HTRA1	HTRA1	G3IBF4	3
PQ-CHO-1	B9 domain-containing protein 2	TGFB1	G3IA12	3
PQ-CHO-1	Lipoprotein lipase	LPL	G3H6V7	3
PQ-CHO-1	Glutathione S-transferase	GSTP1	G3I3Y6	3
PQ-CHO-1	Endoplasmic reticulum chaperone BiP	GRP78	G3I8R9	3
PQ-CHO-1	Phosphopyruvate hydratase	ENOA	G3I0W1	3
PQ-CHO-1	Annexin	ANXA5	G3I5A4	3
PQ-CHO-1	C-X-C motif chemokine	CXCL3	A4URF0	3
PQ-CHO-1	Peptidyl-prolyl cis-trans isomerase A	PPIA	P14851	3
PQ-CHO-2	Group XV phospholipase A2	LPLA2	G3HKV9	3
PQ-CHO-2	Matrix metalloproteinase 19	MMP-19	G3HRK9	3
PQ-CHO-2	C-C motif chemokine	MCP-1	G3GTT2	2
PQ-CHO-2	Lipase	LAL	G3HQY6	3
PQ-CHO-2	Clusterin	Clusterin	G3HNI3	3
PQ-CHO-2	Carboxypeptidase D	CPD	G3HR95	3
PQ-CHO-2	Liver carboxylesterase 1-like protein	CES1	A0A061IFE2	3
PQ-CHO-2	Liver carboxylesterase B-1-like protein	CES1-B1L	A0A061I7X9	3
PQ-CHO-2	Cathepsin B	CatB	G3H0L9	3
PQ-CHO-2	Cathepsin D	CatD	G3I4W7	3
PQ-CHO-2	Cathepsin E	CatE	G3HAY9	3
PQ-CHO-2	Cathepsin L	CatL	G3INC5	3
PQ-CHO-2	Cathepsin X	CatZ	Q9EPP7	3
PQ-CHO-2	Sialate O-acetyltransferase	SIAE	G3IIB1	3