

Cell Lysate Kinase Assays

Real-Time Protein Kinase Activity Assays in Complex Biological Samples



Search Below to Match Your Target With Kinase-Selective Lysate Substrate
Cell Lysate Assay Kit (AQTxxxx-KL-100):
Each kit includes sufficient volumes of substrate, reaction reagents, cell extraction reagents and controls to perform 100 reactions at 15 μ M substrate in a 384-well plate (25 μ L reaction volume). Includes PhosphoSens kinase-selective lysate substrates, reaction reagents, cell extraction reagents and assay controls.
Cell Lysate Assay Kit (AQTxxxx-KL-1000):
Each kit includes sufficient volumes of substrate, reaction reagents, cell extraction reagents and controls to perform 1,000 reactions at 15 μ M substrate in a 384-well plate (25 μ L reaction volume). Includes PhosphoSens kinase-selective lysate substrates, reaction reagents, and cell extraction reagents.
Kinase-Selective Lysate Substrate (AQTxxxx-L):
AssayQuant's Cell Lysate Kinase Assays combine PhosphoSens Detection Technology with high-throughput peptide synthesis to design sensor peptide substrates that are highly selective for your targets of interest. Each Kinase-Selective Lysate Substrate can be purchased as lyophilized 1mg aliquots. Each mg is sufficient for 1,500 reactions at 15 μ M substrate in a 384-well plate (25 μ L reaction volume).

Target Name	HGNC Approved Full Name	Kinase-Selective Lysate Substrate	Substrate MW (g/mol)	Assay Validation Report
ERK1/2	mitogen-activated protein kinase (MAPK3/1)	AQT1076	2373.0	LINK >
AKT1/2/3	AKT serine/Threonine Kinase 1/2/3	AQT0982	3204.7	LINK >
GSK3A/B	glycogen synthase kinase 3 alpha/beta	AQT1211	2005.9	LINK >

Detailed description of each target specific cell lysate kinase assay kit can be found on the next page.

PhosphoSens ERK1/2 Cell Lysate Kinase Assay Kit		AQT-AQT1076-KL-100	AQT-AQT1076-KL-1000	AQT-AQT1076-L-01 & AQT-LRP
Components	Description	100 Assay Kit Volumes	1,000 Assay Kit Volumes	Selective Substrate System Volumes
PhosphoSens Kinase-Selective Lysate Substrate, AQT1076, 1mM	ERK1/2-selective sensor peptide substrate for assaying kinase activity in complex biological samples	45 μ L	420 μ L	1mg
ATP Solution, 100 mM	100 mM ATP in nuclease-free water	30 μ L	300 μ L	600 μ L
DTT Solution, 1 M	1 M DTT in nuclease-free water	5 μ L	30 μ L	60 μ L
Enzyme Reaction Buffer (ERB), 10X	500 mM HEPES, pH 7.5, 0.1% Brij-35, 100 mM MgCl ₂	300 μ L	3,000 μ L	6,000 μ L
Enzyme Dilution Buffer (EDB), 5X Base	20 mM HEPES, pH 7.5, 0.01% Brij-35, 5% Glycerol, 1 mg/mL Bovine Serum Albumin (BSA)	800 μ L	8,000 μ L	16,000 μ L
EGTA Solution, 550 mM	550 mM EGTA in water (pH adjusted with NaOH)	30 μ L	300 μ L	600 μ L
PhosphoPreserve Cell Extraction Buffer, 1X Base	Please reach out to support@assayquant.com to inquire	1,000 μ L	3,000 μ L	6000 μ L
PhosphoPreserve Protease Inhibitor Cocktail	Please reach out to support@assayquant.com to inquire	20 μ L	60 μ L	120 μ L
PhosphoPreserve Phosphatase Inhibitor Cocktail	Please reach out to support@assayquant.com to inquire	20 μ L	60 μ L	120 μ L
PhosphoSens PhosphoControl Peptide, AQT1107, 1 mM	Fully phosphorylated version of the ERK1/2-selective sensor peptide substrate, AQT1076.	10 μ L	Not Included	Not Included
NIH3T3 Lysate (+PDGFG)*	Crude lysate of NIH3T3 cells treated with 25 ng/mL of PDGFG after an overnight serum depletion to make the cells quiescent. Lysate is in PhosphoPreserve CEB, supplemented with DTT, and PhosphoPreserve Protease and Phosphatase inhibitor cocktails.	25 μ L	Not Included	Not Included
ERK2 (Full Length, GST Tag)*	Recombinant Human ERK2 Protein (Full Length, GST Tag). Active stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, 25% glycerol.	2 μ L	Not Included	Not Included
SCH72984, 10 mM	SCH72984 resuspended in 100% DMSO	5 μ L	Not Included	Not Included

Controls that are not included in can be purchased seperarly. Please contact us at orders@assayquant.com if you would like to request a quote.

*Concentrations for purified and endogenous control samples can be found in the Certificate of Analysis (CoA) for your kit. Please contact us at support@assayquant.com if you would like an electronic copy.

PhosphoSens AKT1/2/3 Cell Lysate Kinase Assay Kit		AQT-AQT0982-KL-100	AQT-AQT0982-KL-1000	AQT-AQT0982-L-01 & AQT-LRP
Components	Description	100 Assay Kit Volumes	1,000 Assay Kit Volumes	Selective Substrate System Volumes
PhosphoSens Kinase-Selective Lysate Substrate, AQT0982, 1mM	AKT1/2/3-selective sensor peptide substrate for assaying kinase activity in complex biological samples	45 μ L	420 μ L	1mg
ATP Solution, 100 mM	100 mM ATP in nuclease-free water	30 μ L	300 μ L	600 μ L
DTT Solution, 1 M	1 M DTT in nuclease-free water	5 μ L	30 μ L	60 μ L
Enzyme Reaction Buffer (ERB), 10X	500 mM HEPES, pH 7.5, 0.1% Brij-35, 100 mM MgCl ₂	300 μ L	3,000 μ L	6,000 μ L
Enzyme Dilution Buffer (EDB), 5X Base	20 mM HEPES, pH 7.5, 0.01% Brij-35, 5% Glycerol, 1 mg/mL Bovine Serum Albumin (BSA)	800 μ L	8,000 μ L	16,000 μ L
EGTA Solution, 550 mM	550 mM EGTA in water (pH adjusted with NaOH)	30 μ L	300 μ L	600 μ L
PhosphoPreserve Cell Extraction Buffer, 1X Base	Please reach out to support@assayquant.com to inquire	1,000 μ L	3,000 μ L	6000 μ L
PhosphoPreserve Protease Inhibitor Cocktail	Please reach out to support@assayquant.com to inquire	20 μ L	60 μ L	120 μ L
PhosphoPreserve Phosphatase Inhibitor Cocktail	Please reach out to support@assayquant.com to inquire	20 μ L	60 μ L	120 μ L
PhosphoSens PhosphoControl Peptide, AQT1146, 1 mM	Fully phosphorylated version of the AKT1/2/3-selective sensor peptide substrate, AQT0982.	10 μ L	Not Included	Not Included
NIH3T3 Lysate (+PDGFG)*	Crude lysate of NIH3T3 cells treated with 50 ng/mL of PDGFG after an overnight serum depletion to make the cells quiescent. Lysate is in PhosphoPreserve CEB, supplemented with DTT, and PhosphoPreserve Protease and Phosphatase inhibitor cocktails.	25 μ L	Not Included	Not Included
Pre-activated AKT1*	AKT activated with a lipid/detergent mix, M12, and PDK1	2 μ L	Not Included	Not Included
Rizavaseritb (A-443654)	Rizavaseritb (A-443654) resuspended in 100% DMSO	5 μ L	Not Included	Not Included
Vevorisertib trihydrochloride (ARQ 751 trihydrochloride)	Vevorisertib trihydrochloride (ARQ 751 trihydrochloride) resuspended in 100% DMSO	5 μ L	Not Included	Not Included

Controls that are not included in can be purchased seperarly. Please contact us at orders@assayquant.com if you would like to request a quote.

*Concentrations for purified and endogenous control samples can be found in the Certificate of Analysis (CoA) for your kit. Please contact us at support@assayquant.com if you would like an electronic copy.

PhosphoSens GSK3A/B Cell Lysate Kinase Assay Kit		AQT-AQT1211-KL-100	AQT-AQT1211-KL-1000	AQT-AQT1211-L-01 & AQT-LRP
Components	Description	100 Assay Kit Volumes	1,000 Assay Kit Volumes	Selective Substrate System Volumes
PhosphoSens Kinase-Selective Lysate Substrate, AQT1211, 1mM	GSK3A/B-selective sensor peptide substrate for assaying kinase activity in complex biological samples	45 μ L	420 μ L	1mg
ATP Solution, 100 mM	100 mM ATP in nuclease-free water	30 μ L	300 μ L	600 μ L
DTT Solution, 1 M	1 M DTT in nuclease-free water	5 μ L	30 μ L	60 μ L
Enzyme Reaction Buffer (ERB), 10X	500 mM HEPES, pH 7.5, 0.1% Brij-35, 100 mM MgCl ₂	300 μ L	3,000 μ L	6,000 μ L
Enzyme Dilution Buffer (EDB), 5X Base	20 mM HEPES, pH 7.5, 0.01% Brij-35, 5% Glycerol, 1 mg/mL Bovine Serum Albumin (BSA)	800 μ L	8,000 μ L	16,000 μ L
EGTA Solution, 550 mM	550 mM EGTA in water (pH adjusted with NaOH)	30 μ L	300 μ L	600 μ L
PhosphoPreserve Cell Extraction Buffer, 1X Base	Please reach out to support@assayquant.com to inquire	1,000 μ L	3,000 μ L	6000 μ L
PhosphoPreserve Protease Inhibitor Cocktail	Please reach out to support@assayquant.com to inquire	20 μ L	60 μ L	120 μ L
PhosphoPreserve Phosphatase Inhibitor Cocktail	Please reach out to support@assayquant.com to inquire	20 μ L	60 μ L	120 μ L
PhosphoSens PhosphoControl Peptide, AQT1158, 1 mM	Fully phosphorylated version of the GSK3A/B-selective sensor peptide substrate, AQT1211.	10 μ L	Not Included	Not Included
A375 Lysate Control*	Crude lysate of A375 cells in PhosphoPreserve CEB, supplemented with DTT, and PhosphoPreserve Protease and Phosphatase inhibitor cocktails.	25 μ L	Not Included	Not Included
GSK3B (Full Length, HIS Tag)*	Recombinant Human GSK3B Protein (Full Length, HIS Tag). Active stored in 50 mM Tris-HCl, pH 7.5, 50-300mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25-1.0mM DTT, 0-0.1mM PMSF, 10-25% glycerol	2 μ L	Not Included	Not Included
LY2090314, 10 mM	LY2090314 resuspended in 100% DMSO	5 μ L	Not Included	Not Included

Controls that are not included in can be purchased seperarly. Please contact us at orders@assayquant.com if you would like to request a quote.

*Concentrations for purified and endogenous control samples can be found in the Certificate of Analysis (CoA) for your kit. Please contact us at support@assayquant.com if you would like an electronic copy.