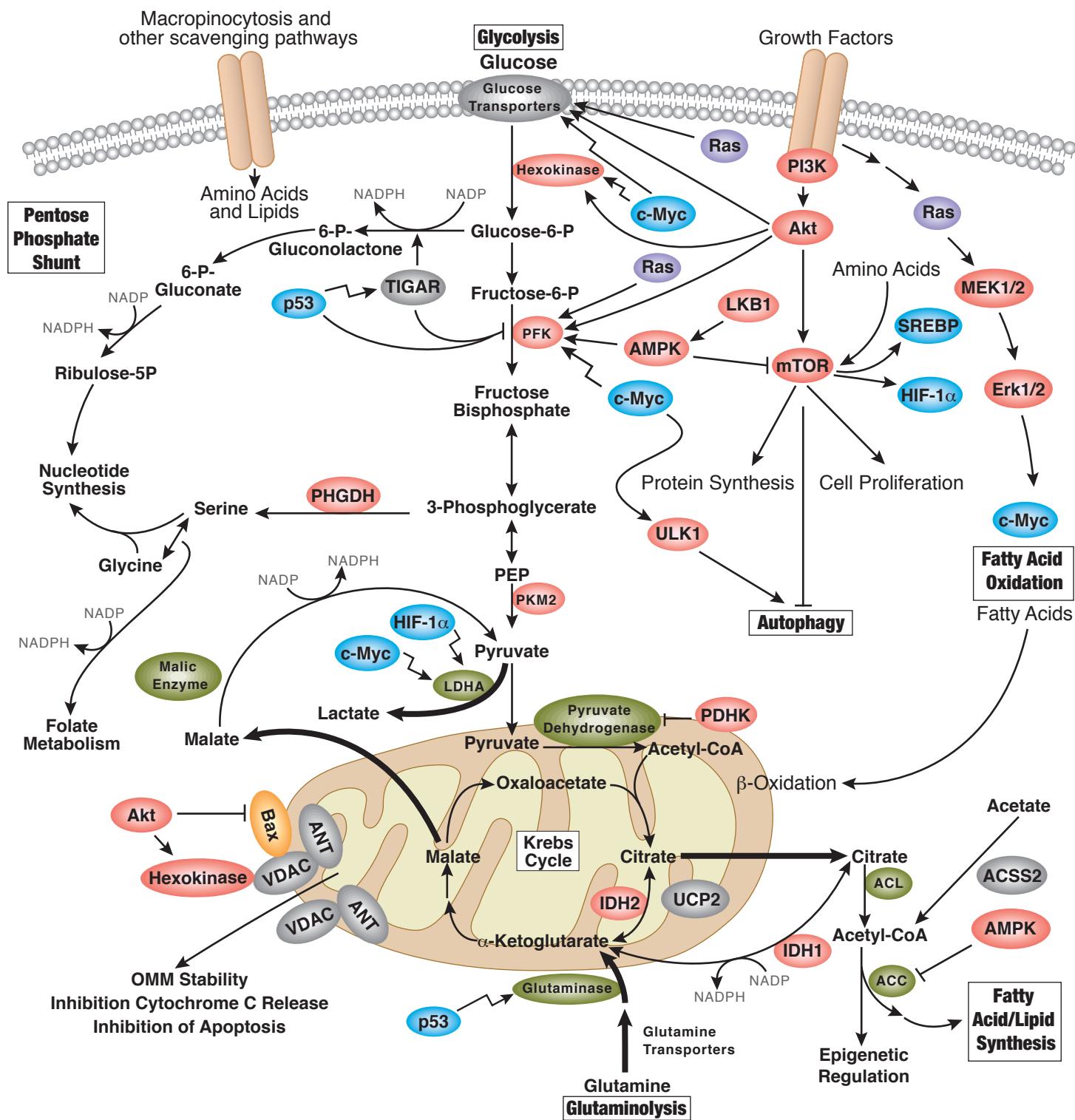


Warburg Effect



For pathway key and background please visit:

www.cellsignal.com/warburg



Cell Signaling
TECHNOLOGY®



Key Products for Warburg Effect

Visit www.cellsignal.com/warburglist for full listing of antibodies, related kits, and reagents.

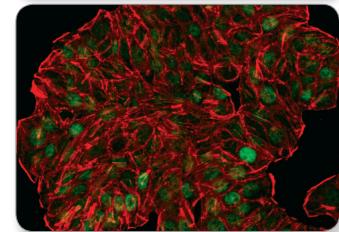
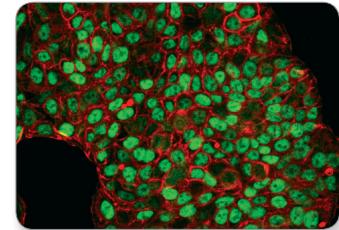
ANTIBODIES

	APPLICATIONS	REACTIVITY
#3676 Acetyl-CoA Carboxylase (C83B10) Rabbit mAb	WB, IHC-P, IF-IC, F	H, M, R, Hm
#3661 Phospho-Acetyl-CoA Carboxylase (Ser79) Antibody	WB, IP, IHC-P	H, M, R, Mk, (C, B)
#4691 Akt (pan) (C67E7) Rabbit mAb	WB, IP, IHC-P, IF-IC, F	H, M, R, Mk, Dm
#13038 Phospho-Akt (Thr308) (D25E6) XP® Rabbit mAb	WB, IP, IF-IC, F	H, M, R, Mk
#4060 Phospho-Akt (Ser473) (D9E) XP® Rabbit mAb	WB, IP, IHC-P, IF-IC, F	H, M, R, Hm, Mk, Dm, Z, B
#8060 Aldolase A (D73H4) Rabbit mAb	WB	H, M, Mk
#5831 AMPKα (D5A2) Rabbit mAb	WB, IP	H, M, R, Mk, B
#2535 Phospho-AMPKα (Thr172) (40H9) Rabbit mAb	WB, IP, IHC-P	H, M, R, Hm, Mk, Dm, Sc, (C, Z, B, Pg)
#4332 ATP-Citrate Lyase Antibody	WB	H, M, R, Mk
#4331 Phospho-ATP-Citrate Lyase (Ser455) Antibody	WB, IP	H, M, (R)
#13987 c-Myc (D3N8F) Rabbit mAb	WB, IF-IC, F, ChIP	H, M, R, Mk
#8171 Enolase-2 (D20H2) Rabbit mAb	WB, IP	H, M, R, Mk
#12939 Glut1 (D3J3A) Rabbit mAb	WB, IP	H, M, R
#2213 Glut4 (1F8) Mouse mAb	WB	H, M
#2024 Hexokinase I (C35C4) Rabbit mAb	WB, IP, IHC-P, IF-IC	H, M
#2867 Hexokinase II (C64G5) Rabbit mAb	WB	H, M, R, Mk
#14179 HIF-1α (D2U3T) Rabbit mAb	WB, ChIP	H, M, R, Mk
#3434 Hydroxy-HIF-1α (Pro564) (D43B5) XP® Rabbit mAb	WB, IP, IF-IC	H, (M, R, Mk, C, X, Z, Pg)
#8137 IDH1 (D2H1) Rabbit mAb	WB, IP, IF-IC, F	H, M, R, Mk
#3582 LDHA (C4B5) Rabbit mAb	WB, IHC-P, IF-IC	H, Mk
#8176 Phospho-LDHA (Tyr10) Antibody	WB	H, M, R
#3047 LKB1 (D60C5) Rabbit mAb	WB	H, M, R, Mk
#3482 Phospho-LKB1 (Ser428) (C67A3) Rabbit mAb	WB	H, M, R, Mk
#4694 MEK1/2 (L38C12) Mouse mAb	WB, IHC-P, IF-IC, F	H, M, R, Mk
#2338 Phospho-MEK1/2 (Ser221) (166F8) Rabbit mAb	WB, IHC-P, F	H, M, R, Mk, (Dg)
#14462 MPC1 (D2L9I) Rabbit mAb	WB, IP	H, M, R, Mk
#2983 mTOR (7C10) Rabbit mAb	WB, IHC-P, IF-IC, F	H, M, R, Mk, (Hr)
#5536 Phospho-mTOR (Ser2448) (D9C2) XP® Rabbit mAb	WB, IP, IF-IC	H, M, Mk, (R, C, Pg, Hr)
#4695 p44/42 MAPK (Erk1/2) (137F5) Rabbit mAb	WB, IP, IHC-P, IF-IC, F	H, M, R, Hm, Mk, Mi, Dm, Z, B, Dg, Pg, Ce
#4370 Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (D13.14.4E) XP® Rabbit mAb	WB, IP, IHC-P, IF-IC, F	H, M, R, Hm, Mk, Mi, Dm, Z, B, Dg, Pg, Sc
#2527 p53 (7F5) Rabbit mAb	WB, IHC-P, IF-IC, F, ChIP	H, Mk
#9286 Phospho-p53 (Ser15) (16G8) Mouse mAb	WB, IF-IC, F	H
#3820 PDHK1 (C47H1) Rabbit mAb	WB, IP	H, M, R, Mk, (B)
#13029 PFKFB2 (D515F) Rabbit mAb	WB, IP, IF-IC	H, Mk
#13064 Phospho-PFKFB2 (Ser483) (D4R1W) Rabbit mAb	WB	H, (M, R)
#13123 PFKFB3 (D7H4Q) Rabbit mAb	WB	H, M, R, Mk
#12746 PFKP (D2E5) Rabbit mAb	WB, IP, IF-IC	H, Mk
#12098 PGAM1 (D3J9T) Rabbit mAb	WB	H, M, R, Hm, Mk
#4257 PI3 Kinase p85 (19H8) Rabbit mAb	WB, IP	H, M, R, (C)
#4228 Phospho-PI3 Kinase p85 (Tyr458)/p55 (Tyr199) Antibody	WB, IP	M, (H, R, Mk, B)
#4249 PI3 Kinase p110α (C73F8) Rabbit mAb	WB, IP, IHC-P	H, M, R, B
#7067 PKM1 (D30G6) XP® Rabbit mAb	WB, IHC-P, IF-F, IF-IC	H, M
#4053 PKM2 (D78A4) XP® Rabbit mAb	WB, IP, IHC-P, IF-IC	H, M, R, Mk
#3827 Phospho-PKM2 (Tyr105) Antibody	WB	H, M, R, Mk
#3205 Pyruvate Dehydrogenase (C54G1) Rabbit mAb	WB, IHC-P	H, M, R, Mk
#14429 Ras (G12D Mutant Specific) (D8H7) Rabbit mAb	WB	H, (M, R)
#11998 SDHA (D6J9M) XP® Rabbit mAb	WB, IP, IHC-P, IF-IC	H, M, R, Hm, Mk
#4866 VDAC Antibody	WB, IHC-P	H, M, R, B

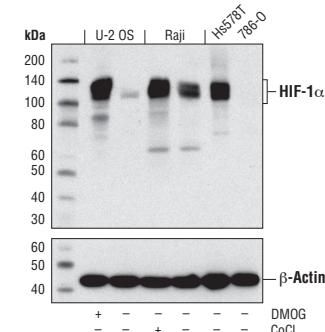
RELATED KITS AND REAGENTS

#12866 Glycolysis II Antibody Sampler Kit
#7135 PathScan® Phospho-Akt (Thr308) Chemiluminescent Sandwich ELISA Kit
#7959 PathScan® Phospho-AMPKα (Thr172) Sandwich ELISA Kit
#8821 Active Ras Detection Kit
#12581 Glucose-6-Phosphate Dehydrogenase (G6PD) Activity Assay Kit

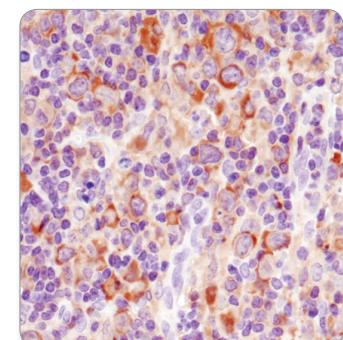
APPLICATIONS & REACTIVITY KEY: **WB** Western Blotting / **IP** Immunoprecipitation / **IHC** Immunohistochemistry / **IF** Immunofluorescence / **F** Flow Cytometry / **ChIP** Chromatin Immunoprecipitation / **-IC** Immunocytochemistry / **-P** Paraffin / **-F** Frozen / **E-P** Peptide ELISA / **H** human / **M** mouse / **R** rat / **Hm** hamster / **Mk** monkey / **C** chicken / **Mi** mink / **Dm** D. melanogaster / **X** Xenopus / **Z** zebra fish / **B**: bovine / **Dg** dog / **Pg** pig / **Sc** S. cerevisiae / **All** all species expected / () 100% sequence homology



c-Myc (D3N8F) Rabbit mAb #13987: Confocal IF analysis of HT-29 cells, untreated (top) or treated with bromodomain inhibitor JQ1 (1 μM, 72 hr; bottom), using #13987 (green). Actin filaments were labeled with DyLight® 554 Phalloidin #13054 (red).



HIF-1α (D2U3T) Rabbit mAb #14179: WB analysis of extracts from various cell lines, untreated (-) or treated with either DMOG (1 mM, 6 hr; +) or cobalt chloride (100 μM, 4 hr; +) as indicated, using #14179 (upper) and β-Actin (D6A8) Rabbit mAb #8457 (lower).



PKM2 (D78A4) XP® Rabbit mAb #4053: IHC analysis of paraffin-embedded human lymphoma using #4053.