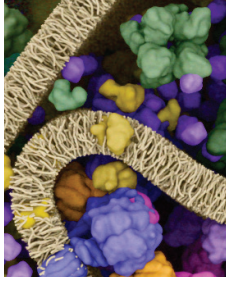

Energy Metabolism

Brain
Leptin
Low Glucose, Hypoxia, Ischemia, Heat Shock
AICAR Exercise
Histamine Thrombin
Other RTKs
Insulin Receptor
Insulin
Glucose
Glut4
Glut1
Adiponectin Receptor
α-Adrenergic Receptor
PLCβ
Gα$_q$
[AMP + ADP / ATP]
[cAMP]
PKA
Ras
PI3K
Glut1 vesicle
Glut Translocation
Glut Trafficking
Glut4 vesicle
[Ca^{2+}]
CaMKK
STRAD
MO25α
LKB1
B-Raf
Erk
Akt
TXNIP
TBC1D1
p90RSK
Glycogen Synthesis
GS
β
γ
AMPKα
Glycolysis
PFKFB3
TSC2
TSC1
Rheb
Sterol/ Isoprenoid Synthesis
HMG-CoA Reductase
ACC
Malonyl CoA
Raptor
mTOR
GβL
CPT1
Fatty Acid Oxidation
ULK1
FIP200
Atg13
p70 S6K
4E-BP1
Autophagy
HSL
p300
Beclin
ATGL
Lipolysis
SREBP-1
PI3K Class III
Atg14
Tau
MYPT1
MBS85
HDAC4
HDAC5
HDAC7
HNF4α
SirT1
CLIP170
Microtubules
Fatty Acid Synthase
Lipogenesis
Myosin Light Chain2
Actin Dynamics
TORC2/ CRTC2
PGC1α
CREB
CRY1
FoxO
Gluconeogenesis
Acute Regulation of Metabolism
Protein Metabolism and Autophagy
Cytoskeletal Signaling
Transcriptional Control of Metabolism

For pathway key and background, please visit:
www.cst-science.com/AMPK

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Key Products for Energy Metabolism

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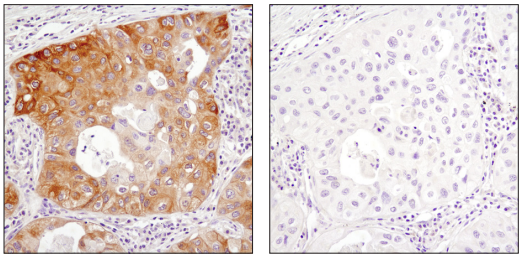
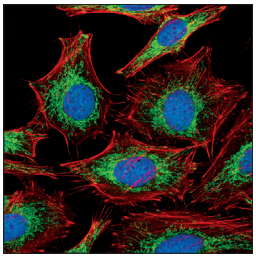
ANTIBODIES		APPLICATIONS	REACTIVITY
5759	Phospho-AMPK Substrate Motif [LXRXX(pS/pT) MultiMab™ Rabbit mAb mix	WB, IP, E-P	All
5831	AMPKα (D5A2) Rabbit mAb	WB, IP	H, M, R, Mk, B
2793	AMPKα (F6) Mouse mAb	WB	H, M, R, Hm, Mk
50081	Phospho-AMPKα (Thr172) (D4D6D) Rabbit mAb	WB, IP, IHC-P	H, M, R
2795	AMPKα1 Antibody	WB	H, Mk
4185	Phospho-AMPKα1 (Ser485)/AMPKα2 (Ser491) Antibody	WB	H, M, R, Mk
2757	AMPKα2 Antibody	WB, IP	H, Mk
12063	AMPKβ1 Antibody	WB, IP	H, M, Mk
4186	Phospho-AMPKβ1 (Ser182) Antibody	WB	H, M, R, Mk
4148	AMPKβ2 Antibody	WB, IP	H, M, R, Mk
4150	AMPKβ1/2 (57C12) Rabbit mAb	WB, IHC-P, IF-IC, F	H, M, R, Hm, Mk
4187	AMPKγ1 Antibody	WB	H, Mk
2536	AMPKγ2 Antibody	WB	H, M, R, Mk, B
2550	AMPKγ3 Antibody	WB	H
4458	ARK5 Antibody	WB	H, M, R, Mk
14717	Phospho-Beclin-1 (Ser93) (D9A5G) Rabbit mAb	WB, IP	H
5935	BRSK1 (D10F2) Rabbit mAb	WB, IP	H, M, R
5460	BRSK2 (D29B6) Rabbit mAb	WB, IP	H, M, R
14309	Citrate Synthase (D7V8B) Rabbit mAb	WB, IF-IC	H, M, R, Hm, Mk
3676	Acetyl-CoA Carboxylase (C83B10) Rabbit mAb	WB, IP, IHC-P, IF-IC, F	H, M, R, Hm
11818	Phospho-Acetyl-CoA Carboxylase (Ser79) (D7D11) Rabbit mAb	WB, IP, IHC-P, IF-IC	H, M, R
4850	COX IV (3E11) Rabbit mAb	WB, IP, IHC-P, IF-IC, F	H, R, Mk, Z, B, Pg
11967	COX IV (4D11-B3-E8) Mouse mAb	WB, IP, IHC-P, IF-IC	H, M, R, Mk
12252	CPT1A (D3B3) Rabbit mAb	WB, IP	H
12963	Cytochrome c (6H2.B4) Mouse mAb	IP, IF-IC	H, M, R
3180	Fatty Acid Synthase (C20G5) Rabbit mAb	WB, IP, IHC-P, IHC-F, IF-IC	H, M, R
12939	Glut1 (D3J3A) Rabbit mAb	WB, IP	H, M, R
56750	Glutaminase-1/GLS1 (E9H6H) XP® Rabbit mAb	WB, IP, IHC-P	H, Mk

ANTIBODIES		APPLICATIONS	REACTIVITY
4137	Phospho-HSL (Ser565) Antibody	WB, IF-IC	M
3050	LKB1 (27D10) Rabbit mAb	WB, IP	H, Mk
13031	LKB1 (D60C5F10) Rabbit mAb (IHC Formulated)	IHC-P	H, M, Mk
3055	Phospho-LKB1 (Ser334) Antibody	WB	H
3482	Phospho-LKB1 (Ser428) (C67A3) Rabbit mAb	WB	H, M, R, Mk
3319	MARK1 Antibody	WB	H, M, R
9118	MARK2 Antibody	WB	H, M, R
9311	MARK3 Antibody	WB, IP	H, M, R
4834	MARK4 Antibody	WB	H, M, R
2274	MELK Antibody	WB, IP	H
2716	MO25α/CAB39 (C49D8) Rabbit mAb	WB, IP	H, M, R, Mk
14462	MPC1 (D2L9I) Rabbit mAb	WB, IP	H, M, R, Mk
46141	MPC2 (D4I7G) Rabbit mAb	WB, IP	H, M, R, Mk
3820	PDHK1 (C47H1) Rabbit mAb	WB, IP	H, M, R, Mk
31866	Phospho-Pyruvate Dehydrogenase α1 (Ser293) Antibody	WB	H, M, R, Mk
3205	Pyruvate Dehydrogenase (C54G1) Rabbit mAb	WB, IHC-P	H, M, R, Mk
89146	Phospho-Raptor (Ser792) (E4V6C) Rabbit mAb	WB, IP	H, M, R
6919	SIK2 (D28G3) Rabbit mAb	WB, IP	H, M
4100	SNARK/NUAK2 Antibody	WB	M
8071	Succinyl-CoA Synthetase (D8A11) Rabbit mAb	WB, IP, IF-IC	H, M, R, Mk
14670	UCP1 (D9D6X) Rabbit mAb	WB, IP	M
89326	UCP2 (D1O5V) Rabbit mAb	WB	H, M, R, Mk
5869	Phospho-ULK1 (Ser555) (D1H4) Rabbit mAb	WB, IP	H, M

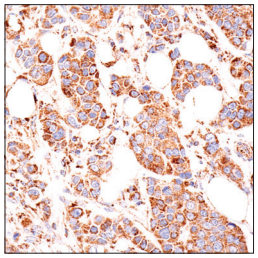
RELATED KITS	
35277	AMPK Substrate Antibody Sampler Kit
5564	PTMScan® Phospho-AMPK Substrate Motif (LXRXXS*/T*) Kit
7959	PathScan® Phospho-AMPKα (Thr172) Sandwich ELISA Kit
7961	PathScan® Total AMPKα Sandwich ELISA Kit
9839	AMPK Subunit Antibody Sampler Kit



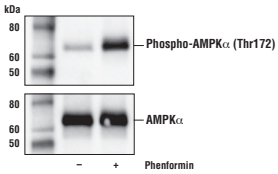
Phospho-Acetyl-CoA Carboxylase (Ser79) (D7D11) Rabbit mAb #11818: IHC analysis of paraffin-embedded human lung carcinoma, untreated (left) or λ phosphatase-treated (right), using #11818.



COX IV (3E11) Rabbit mAb #4850: Confocal IF analysis of HeLa cells labeled with #4850 (green) and β-Actin (8H10D10) Mouse mAb #3700 (red). Samples were mounted in ProLong® Gold Antifade Reagent with DAPI #8961 (blue).



Glutaminase-1/GLS1 (E9H6H) XP® Rabbit mAb #56750: IHC analysis of paraffin-embedded human ductal breast carcinoma, using #56750.



Phospho-AMPKα (Thr172) (D4D6D) Rabbit mAb #50081: WB analysis of extracts from serum-starved NCI-H2228 cells, untreated (-) or treated with phenformin (5 mM, 1 hr; +), using #50081 (upper) or AMPKα (D63G4) Rabbit mAb #5832 (lower).

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For pathway key and background, please visit:

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