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References to cutting edge research that is performed using phosphoELISA™ kits

Akt (Total), Akt [pS473]

Cellular and Pharmacogenetics Foundation of Synergistic Interaction of Pemetrexed and Gemcitabine in Human Non-Small-Cell Lung Cancer Cells. Giovannetti, E. et al., *Mol Pharmacol*, 2005; 68: 110–118.

Pertussis Toxin (PTX) B Subunit and the Nontoxic PTX Mutant PT9K/129G Inhibit Tat-Induced TGF- β Production by NK Cells and TGF- β -Mediated NK Cell Apoptosis. Zocchi, R.M. et al., *J Immunol*, 2005; 174: 6054–6061.

Mitochondrial Dysfunction Induces Triglyceride Accumulation in 3T3-L1 Cells: Role of Fatty Acid β -Oxidation and Glucose. Vankoningsloo, S. et al., *J Lipid Res*, 2005; 46: 1133–1149.

Astrocyte-Derived Transforming Growth Factor- β Mediates the Neuroprotective Effects of 17 β -Estradiol: Involvement of Nonclassical Genomic Signaling Pathways. Dhandapani, K.M. et al., *Endocrinology*, 2005; 146: 2749–2759.

Synergistic Antitumor Activity of ZD6474, An Inhibitor of Vascular Endothelial Growth Factor Receptor and Epidermal Growth Factor Receptor Signaling, with Gemcitabine and Ionizing Radiation against Pancreatic Cancer. Bianco, C. et al., *Clin Cancer Res*, 2006; 12: 7099–7107.

Interaction Between Gemcitabine and Topotecan in Human Non-Small-Cell Lung Cancer Cells: Effects on Cell Survival, Cell Cycle and Pharmacogenetic Profile. Giovannetti, E. et al., *Br J Cancer*, 2005; 92(4): 681–689.

Regulation of Hypoxia-Inducible Factor-1 α Protein Level During Hypoxic Conditions by the Phosphatidylinositol 3-Kinase/Akt/Glycogen Synthase Kinase 3 β Pathway in HepG2 Cells. Mottet, D. et al., *J Biol Chem*, 2003; 278(33): 31277–31285.

c-Kit (Total), c-Kit [pY823]

Inhibition of Drug-Resistant Mutants of ABL, KIT, and EGF Receptor Kinases. Carter, T.A. et al., *PNAS*, 2005; 102: 11011–11016.

CREB (Total), CREB [pS133]

Potential Role of cAMP Response Element-Binding Protein in Ethanol-Induced N-Methyl-D-Aspartate Receptor 2B Subunit Gene Transcription in Fetal Mouse Cortical Cells. Rani, S.C.S. et al., *Mol Pharmacol*, 2005; 67: 2126–2136.

EGFR (Full Length), EGFR [pY1068]

Prediction of Active Drug Plasma Concentrations Achieved in Cancer Patients by Pharmacodynamic Biomarkers Identified from the Geo Human Colon Carcinoma Xenograft Model. Luo, F.R. et al., *Clin Cancer Res*, 2005; 11: 5558–5565.

Imaging Epidermal Growth Factor Receptor Phosphorylation in Human Colorectal Cancer Cells and Human Tissues. Keese, M. et al., *J Biol Chem*, 2005; 280: 27826–27831.

HB-EGF/HER-1 Signaling in Bone Marrow Mesenchymal Stem Cells: Inducing Cell Expansion and Preventing Reversibly Multi-Lineage Differentiation. Krampera, M. et al., *Blood*, 2005; 105: 59–66.

EGFR (Full Length), EGFR [pY1173]

Inhibition of Drug-Resistant Mutants of ABL, KIT, and EGF Receptor Kinases. Carter, T.A. et al., *PNAS*, 2005; 102: 11011–11016.

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ERK1/2 (Total), ERK1/2 [pTpY185/187]

Interdependent Serotonin Transporter and Receptor Pathways Regulate S100A4/Mts1, a Gene Associated With Pulmonary Vascular Disease. Lawrie, A. et al., *Circ Res*, 2005; 97: 227–235.

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Actinobacillus Actinomycetemcomitans Induces Apoptosis in Human Monocytic THP-1 Cells. Kato, S. et al., *J Med Micro*, 2005; 54: 293–298.

Signaling Effects of Menadione: From Tyrosine Phosphatase Inactivation to Connexin Phosphorylation. Abdelmohsen, K. et al., *Methods Enzymol*, 2004; 378: 258–72.

Different Toll-Like Receptor Agonists Instruct Dendritic Cells to Induce Distinct The Responses via Differential Modulation of Extracellular Signal-Regulated Kinase-Mitogen-Activated Protein Kinase and c-Fos. Agrawal, S. et al., *J Immunol*, 2003; 171: 4984–4989.

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ERK1/2 [pTpY202/204], p38 MAPK [pTpY180/182], JNK [pTpY183/185]

Alpha-Synuclein and Its Disease-Causing Mutants Induce ICAM-1 and IL-6 in Human Astrocytes and astrocytoma cells. Klegeris, A. et al., *FASEB J*, 2006; 20: 2000–2008.

FAK [pY397]

G Protein-Coupled Receptor Activation Rapidly Stimulates Focal Adhesion Kinase (FAK) Phosphorylation at Ser-843: Mediation by Ca²⁺, Calmodulin and Ca²⁺/Calmodulin-Dependent Kinase II. Fan, R.S. et al., *J Biol Chem*, 2005; 280: 24212–24220.

IkB [pS32]

Collagen and Aggrecan Degradation is Blocked in Interleukin-1-Treated Cartilage Explants by an Inhibitor of IkB Kinase through Suppression of Metalloproteinase Expression. Pattoli, M.A. et al., *J Pharmacol Exp Ther*, 2005; 315: 382–388.

JNK [pTpY183/185]

Alpha-Synuclein and Its Disease-Causing Mutants Induce ICAM-1 and IL-6 in Human Astrocytes and Astrocytoma cells. Klegeris, A. et al., *FASEB J*, 2006; 20: 2000–2008.

CD72 Down-Modulates BCR-Induced Signal Transduction and Diminishes Survival in Primary Mature B Lymphocytes. Daniel H. et al., *J Immunol*, 2006; 176: 5321–5328.

Actinobacillus Actinomycetemcomitans Induces Apoptosis in Human Monocytic THP-1 Cells. Kato, S. et al., *J Med Micro*, 2005; 54: 293–298.

Different Toll-Like Receptor Agonists Instruct Dendritic Cells to Induce Distinct The Responses via Differential Modulation of Extracellular Signal-Regulated Kinase-Mitogen-Activated Protein Kinase and c-Fos. Agrawal, S. et al., *J Immunol*, 2003; 171: 4984–4989.

NF-κBp65 (Total)

All-Trans-Retinoic Acid Prevents Radiation- or Bleomycin-Induced Pulmonary Fibrosis. Tabata, C. et al., *J Respir Crit Care Med*, 2006; 174: 1352–1360.

p38 MAPK (Total), p38 MAPK [pTpY180/182]

Basic Fibroblast Growth Factor-Induced Cell Death is Effected Through Sustained Activation of p38MAPK and Up-Regulation of the Death Receptor p75NTR. Williamson, A.J.K. et al., *J Biol Chem*, 2004; 279(46): 47912–47928.

Retinoblastoma Suppression of Matrix Metalloproteinase 1, but not Interleukin-6, Through a p38-Dependent Pathway in Rheumatoid Arthritis Synovial Fibroblasts. Bradley, K. et al., *Arthritis Rheum*, 2004; 50(1): 78–87.

Corticotropin-Releasing Hormone Induces Vascular Endothelial Growth Factor Release from Human Mast Cells via the cAMP/Protein Kinase A/p38 Mitogen-Activated Protein Kinase Pathway. Cao, J. et al., *Mol Pharmacol*, 2006; 69: 998–1006.

p53 (Total), p53 [pS15]

Roscovitine-Induced Up-Regulation of p53AIP1 Protein Precedes the Onset of Apoptosis in Human MCF-7 Breast Cancer Cells. Wesierska-Gadek, J. et al., *Mol Cancer Ther*, 2005; 4(1): 113–124.

Dual Signaling Mechanisms of Estrogen: Phosphorylation of p53 at Ser15 in Aging HMEC in the Absence of Estrogen Receptor. Hass, R. et al., *Signal Transduction*, 2005; 1–2: 40–47.

Rb [pSpT249/252]

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Src [pY418]

The Role of Extranuclear Signaling Actions of Progesterone Receptor in Mediating Progesterone Regulation of Gene Expression and the Cell Cycle. Boonyaratanakornkit, V. et al., *Mol Endocrinol*, 2006; 2006–0337.

SKI-606, a Src/Abl Inhibitor with In Vivo Activity in Colon Tumor Xenograft Models. Golas, J. et al., *Cancer Res*, 2005; 65: 5358–5364.

Tau (Total)

Reduction of Soluble A and Tau, but not Soluble A Alone, Ameliorates Cognitive Decline in Transgenic Mice with Plaques and Tangles. Oddo, S. et al., *J Biol Chem*, 2006; 281: 39413–39423.