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Role of Akt/PKB and PFKFB isoenzymes in the control of glycolysis, cell proliferation and protein synthesis in mitogen-stimulated thymocytes

by

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Running title: PKB and PFKFB isoenzymes in proliferating thymocytes

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Abbreviations: 4E-BP1, eukaryotic initiation factor 4E-binding protein 1; AMPK, AMPactivated protein kinase; BSA, bovine serum albumin; ConA, concanavalin A; eEF2, eukaryotic elongation factor 2; eIF, eukaryotic initiation factor; ERK, extracellularsignal-regulated kinase; Fru-2,6-P₂, fructose-2,6-bisphosphate; p38 MAPK, p38 protein mitogen-activated MEK. mitogen-activated kinase: protein kinase/extracellular-signal-regulated kinase kinase; mTOR, mammalian target of rapamycin; Raptor, regulatory-associated protein of mTOR; PFKFB1/2/3/4, 6phosphofructo-2-kinase/fructose-2,6-bisphosphatase isoenzyme 1, 2, 3 or 4; RSK1, 90-kDa ribosomal protein S6 kinase 1; rpS6, ribosomal protein S6; p70S6K, p70 kinase; TSC, tuberous ribosomal protein S6 sclerosis complex; PI3K, phosphatidylinositol 3-kinase; PKB, protein kinase B; PP2A, protein phosphatase-2A.

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