Intracellular metabolite concentrations n=2 50 40 n=2 Avg. attomole per cell 000 n=15 20 10 0 s Ġ1 Ġ2 Dominant Cell Cycle Stage 3-methyl-2-oxobutanoic acid desthiobiotin kynurenine pantothenic acid neg tetrahydrobiopterin240 4-hydroxybenzoic acid glutamic acid neg leucine phenylalanine threonine (isom. homoserine) lumichrome thymidine adenine pos glutamine proline tryptophan adenosine 5'-monophosphate pos glutathione oxidized methionine s-(5'-adenosyl)-L-homocysteine pos MTA alpha–ketoglutaric acid glutathione pos s-adenosyl-l-methionine tyrosine Metabolite aspartic acid neg guanine n-acetylglucosamine204 spermidine UDP-glucose citric acid guanosine pos n-acetylglutamic acid succinic acid uridine 5-monophosphate pos citrulline hexose-6-phosphate NAD sucrose387 neg xanthosine neg cytidine pos inosine 5-monophosphate pos NADP T_90to30

T_90to62

nicotinamide

cytosine

isoleucine