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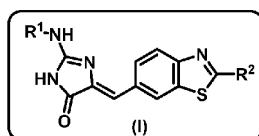
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(54) Title: NEW IMIDAZOLONE DERIVATIVES AS INHIBITORS OF PROTEIN KINASES IN PARTICULAR DYRK1A, CLK1 AND/OR CLK4



(57) Abstract: The present invention relates to a compound of formula (I) wherein R¹ represents a (C₁-C₆)alkyl group, a spiro(C₅-C₁₁)bicyclic ring, a fused phenyl group, a substituted phenyl group, a R'-L- group, wherein L is either a single bond or a (C₁-C₃)alkanediyl group, and R' represents a (C₃-C₈)cycloalkyl group, a bridged (C₆-C₁₀)cycloalkyl group, a (C₃-C₈)heterocycloalkyl group, or a (C₃-C₈)heteroaryl group, or a R'-L- group wherein L is a (C₁-C₃)alkanediyl group, and R' is an optionally substituted phenyl group, and wherein R² represents a hydrogen atom or a (C₁-C₃)alkyl group or any of its pharmaceutically acceptable salt. The present invention further relates to a composition comprising a compound of formula (I) and a process for manufacturing said compound as well as its synthesis intermediates. It also relates to said compound for use as a medicament, in particular in the treatment and/or prevention of cognitive deficits associated with Down syndrome; Alzheimer's disease; dementia; tauopathies; Parkinson's disease; CDKL5 Deficiency Disorder; Phelan-McDermid syndrome; autism; type 1 and type 2 diabetes; abnormal folate and methionine metabolism; osteoarthritis; Duchenne muscular dystrophy; several cancers; neuroinflammation, anemia and viral and unicellular infections and for regulating body temperature.

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