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## 2-Substituted 7-trifluoromethyl-thiadiazolopyrimidones as alkaline phosphatase inhibitors. Synthesis, Structure Activity Relationship and Molecular Docking Study

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Dedicated to Professor Dr. Muhamadsho A. Kukaniev in memory

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### Abstract

Alkaline Phosphatases (APs) play a key role in maintaining a ratio of phosphate to inorganic pyrophosphate (P<sub>i</sub>/PP<sub>i</sub>) and thus regulate extracellular matrix calcification during bone formation and growth. Among different isozymes of AP, aberrant increase in the level of tissue non-specific alkaline phosphatase (TNAP) is strongly associated with vascular calcification and end-stage renal diseases. In this context, we synthesized a novel series of fluorinated pyrimidone derivatives, *i.e.*, 2-bromo-7-trifluoromethyl-5-oxo-5H-1,3,4-

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