Method for obtaining high-gradient doped oxide single crystals via horizontal directional solidification involves placing double molybdenum crucible in vacuum chamber of growth furnace, within thermal zone. Raw material containing dopant is loaded into inner crucible with openings, and raw material without dopant is loaded into outer crucible with seed crystal; air is evacuated from chamber, raw material is heated and melted, single-crystal seed is introduced, crystal is grown in a protective gas atmosphere by moving crucible with single crystal through gradient thermal field, single crystal is cooled to 18-24 °C. Movement speed of double crucible during crystal growth stage varies according to the sequence: $V_0 \rightarrow V \rightarrow V_o$ in the range from 0 to 10 mm/h, where $V < V_0$.