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(54) **Title:** METHODS FOR THE IDENTIFICATION OF PI3K INTERACTING MOLECULES AND FOR THE PURIFICATION OF PI3K

(57) **Abstract:** The present invention relates to a method for the identification of a PI3K interacting compound, comprising the steps of a) providing a protein preparation containing PI3K, b) contacting the protein preparation with phenylthiazole ligand 1 immobilized on a solid support under conditions allowing the formation of a phenylthiazole ligand 1 - PI3K complex, c) incubating the phenylthiazole ligand 1 - PI3K complex with a given compound, and d) determining whether the compound is able to separate PI3K from the immobilized phenylthiazole ligand 1. Furthermore, the present invention relates to a method for the identification of a PI3K interacting compound, comprising the steps of a) providing a protein preparation containing PI3K, b) contacting the protein preparation with phenylthiazole ligand 1 immobilized on a solid support and with a given compound under conditions allowing the formation of a phenylthiazole ligand 1 - PI3K complex, and c) detecting the phenylthiazole ligand 1 - PI3K complex formed in step b). Furthermore, the present invention relates to a method for the identification of a PI3 K interacting compound, comprising the steps of a) providing two aliquots of a protein preparation containing PI3K, b) contacting one aliquot with the phenylthiazole ligand 1 immobilized on a solid support under conditions allowing the formation of a phenylthiazole ligand 1 - PI3K complex, c) contacting the other aliquot with the phenylthiazole ligand 1 immobilized on a solid support and with a given compound under conditions allowing the formation of a phenylthiazole ligand 1 - PI3K complex, and d) determining the amount of the phenylthiazole ligand 1 - PI3K complex formed in steps b) and c). Furthermore, the present invention realtes to a method for the identification of a PI3K interacting compound, comprising the steps of a) providing two aliquots comprising each at least one cell containing PI3K, b) incubating one aliquot with a given compound, c) harvesting the cells of each aliquot, d) lysing the cells in order to obtain protein preparations, e) contacting the protein preparations with the phenylthiazole ligand 1 immobilized on a solid support under conditions allowing the formation of a phenylthiazole ligand 1 - PI3K complex, and f) determining the amount of the phenylthiazole ligand 1 - PI3K complex formed in each aliquot in step e).

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