This Sheet Has Been Replaced

ABSTRACT

RECEPTOR FUNCTION ASSAYS

Methods are provided for assaying the functions (e.g., activation) of signal-transducing receptors on cells. The methods are useful for identifying compounds that are agonists or antagonists of receptor function. The assays utilize a two-antibody sandwich assay employing an immobilized first antibody that specifically binds and captures the receptor of interest; along with any tightly associated proteins or polypeptides and a second antibody directed against (i) an epitope of the receptor that is characteristic of the activated but not the unactivated state, (ii) an epitope of a protein or molecule characteristically bound to activated receptor but not to unactivated receptor, or (iii) an epitope of the receptor that is characteristic of the unactivated but not the activated state. In one embodiment, the level of binding of the second antibody is determined and correlated with the presence of activated receptor, and thus with activation in response to the treatment received by the cells. The methods provided by the invention will find particular use for detecting activation of tyrosine kinase growth factor receptors.