CREATIVE BIOMART®
Assay Kit

c-Src Kinase (Human) Assay/Inhibitor Screening Assay Kit

Product Information

Cat.No. Kit-0800

Product Overview

c-Src Kinase (Human) Assay/Inhibitor Screening Assay Kit is a single-site, non-quantitative immunoassay for kinase activity of recombinant catalytic domain of c-Src. Plates are pre-coated with a newly designed "Tyrosine kinase-binding module-1", which can easily bind recombinant catalytic domain of c-Src, subsequently activate c-Src kinase activity on a microtiter plate. The detector antibody is PY-39, an antibody that specifically detects the phosphotyrosine residue on recombinant catalytic domain of c-Src itself, which means that this kit measures the intensity of autophosphorylation of c-Src catalytic domain.

Description

The Src family of non-receptor protein tyrosine kinases plays critical roles in a variety of cellular signal transduction pathways, regulating such diverse processes as cell division, motility, adhesion, angiogenesis, and survival. Constitutively activated variants of Src family kinases, including the viral oncoproteins v-Src and v-Yes, are capable of inducing malignant transformation of a variety of cell types. Src family kinases, most notably although not exclusively Src, are frequently overexpressed and/or aberrantly activated in a variety of epithelial and non-epithelial cancers. Activation is very common in colorectal and breast cancers, and somewhat less frequent in melanomas, ovarian cancer, gastric cancer, head and neck cancers, pancreatic cancer, lung cancer, brain cancers, and blood cancers. Further, the extent of increased Src family activity often correlates with malignant potential and patient survival. Activation of Src family kinases in human cancers may occur through a variety of mechanisms and is frequently a critical event in tumor progression. Exactly how Src family kinases contribute to individual tumors remains to be defined completely, however they appear to be important for multiple aspects of tumor progression, including proliferation, disruption of cell/cell contacts, migration, invasiveness, resistance to apoptosis, and angiogenesis.

Applications

1) Screening inhibitors or activators of recombinant catalytic domain of c-Src.2) Detecting the

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effects of pharmacological agents on recombinant catalytic domain of c-Src.

Target Species

Human

Usage

For research use only (RUO)

Storage

• Upon receipt store the ATP at -20°C.• Upon receipt store all other components at 4°C; Do not expose reagents to excessive light.

Kit Components

Microplate: One microplate supplied ready to use, with 96 wells (12 strips of 8-wells) in a foil, zip-lock bag with a desiccant pack. Wells are coated with recombinant "Tyrosine kinase-binding module-1".10X Wash Buffer: One 100 mL bottle of 10X buffer containing 2%Tween -20.Kinase Buffer: One 20 mL bottle of 1X buffer used for Kinase Reaction Buffer and sample dilution.20X ATP: Lyophilized ATP Na2 salt. Reconstitute contents of vial with 2 mL of H2O. Mix gently until dissolved. Final concentration of ATP should be 1 mM ATP. The ATP solution can be stored in small aliquots (e.g. 100 µL) at -20°C. The 1 mM ATP stock solution must be diluted to 50 µM in Kinase Reaction Buffer at the time of the assay.HRP conjugated Detection Antibody: One bottle containing 12 mL of HRP (horseradish peroxidase) conjugated anti-phosphotyrosine monoclonal antibody (PY-39).Substrate Reagent: One bottle containing 12 mL of the chromogenic substrate, tetra-methylbenzidine (TMB). Ready to use.Stop Solution: One bottle supplied ready to use, containing 12 mL of 1.25 N H2SO4. Ready to use.

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