

FGFR2 Kinase (Human) Assay/Inhibitor Screening Assay Kit

Cat. No. Kit-0341 Lot. No. (See product label)

SPECIFICATION

Product Overview

FGFR2 Kinase (Human) Assay/Inhibitor Screening Assay Kit is a single-site, non-quantitative immunoassay for kinase activity of recombinant catalytic domain of FGFR2. Plates are pre-coated with a newly designed "Tyrosine kinase-substrate-1", which can be easily phosphorylated by recombinant catalytic domain of FGFR2. The detector antibody is PY-39, an antibody that specifically detects the phosphotyrosine residue on "Tyrosine kinase-substrate-1".

Description

The fibroblast growth factors (FGFs) belong to a family of about 23 related polypeptides. They display biological activity toward cells of mesenchymal, neuronal, and epithelial origin and are involved in processes such as cell growth, organ development, and angiogenesis). The biological effects of FGFs are exerted through interactions with FGF receptors (FGFRs). The receptor family consists of four known members, FGFR1-4, with many isoforms. Upon ligand binding the receptor is thought to be activated through dimerization and phosphorylation by the intracellular tyrosine kinase domains. Heparan sulfate proteoglycans (HSPGs), abundant components of cell surfaces and the extracellular matrix, appear central to signaling through FGF-FGFR complexes.

Applications

1) Screening inhibitors or activators of recombinant catalytic domain of FGFR2.2) Detecting the effects of pharmacological agents on recombinant catalytic domain of FGFR2.

Target Species

Human

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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-substrate-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 1.6 mL of H₂O. Mix gently until dissolved. Final concentration of ATP should be 1.25 mM ATP. The ATP solution can be stored in small aliquots (e.g. 100 µ) at -20°C. The 1 mM ATP stock solution must be diluted to 62.5 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.