Software used COPASI v4.27

COPASI files description

Each .cps file corresponds to copasi file solving ordinary differential equation (ODE) for modeling lorlatinib competitive binding to ALK in presence of ATP. The file nomenclature corresponds to following conditions:

ALK\_(variant/mutation)\_(number).cps

Variant/mutation:

WT = wild type ALK

F1174L = F1174L ALK

F1174L\_G1202R = F1174L/G1202R ALK

F1174L\_L1196M = F1174L/L1196M ALK

R1275Q = R1275Q ALK

R1275Q\_G1202R = R1275Q/G1202R ALK

R1275Q\_L1196M = R1275Q/L1196M ALK

Number:

1 = Kon Lorlatinib was generated based on Ka derived from arithmetic mean of docking scores

2 = Kon Lorlatinib was generated based on Ka derived from upper standard deviation of docking scores

3 = Kon Lorlatinib was generated based on Ka derived from lower standard deviation of docking scores

4 = reactions were set according to four reaction model where only open gate ALK conformation is present

f10 = 10% closed conformation

f33 = 33% closed conformation

f66 = 66% closed conformation

f90 = 90% closed conformation

f100 = 100% closed conformation