Example code of the full model in MONOLIX:

DESCRIPTION:

Full BsAb TMDD Model

[LONGITUDINAL]

input={kel, kon1, koff1, kon2, koff2, kon3, koff3, kon4, koff4, ksynA, kdegA, ksynB, kdegB, kintA, kintB, kintAB, k12, k21, ka, V, F}

PK:

depot(type=1,target=C,p=1/V) ; IV

depot(type=2,target=AB,p=F) ; SC

EQUATION:

odeType=stiff

t\_0 = 0

C\_0 = 0

RA\_0 = ksynA/kdegA

RB\_0 = ksynB/kdegB

RCA\_0 = 0

RCB\_0 = 0

RCAB\_0 = 0

ddt\_C = -kel\*C - kon1\*C\*RA + koff1\*RCA - kon2\*C\*RB + koff2\*RCB - k12\*C + k21\*AP/V + ka\*AB/V

ddt\_RA = ksynA - kdegA\*RA - kon1\*C\*RA + koff1\*RCA - kon4\*RA\*RCB + koff4\*RCAB

ddt\_RB = ksynB - kdegB\*RB - kon2\*C\*RB + koff2\*RCB - kon3\*RB\*RCA + koff3\*RCAB

ddt\_RCA = kon1\*C\*RA - (koff1+kintA)\*RCA - kon3\*RB\*RCA + koff3\*RCAB

ddt\_RCB = kon2\*C\*RB - (koff2+kintB)\*RCB - kon4\*RA\*RCB + koff4\*RCAB

ddt\_RCAB = kon4\*RA\*RCB + kon3\*RB\*RCA - (koff3+koff4+kintAB)\*RCAB

ddt\_AP = k12\*C\*V - k21\*AP

ddt\_AB = - ka\*AB

OUTPUT:

output = {C}