

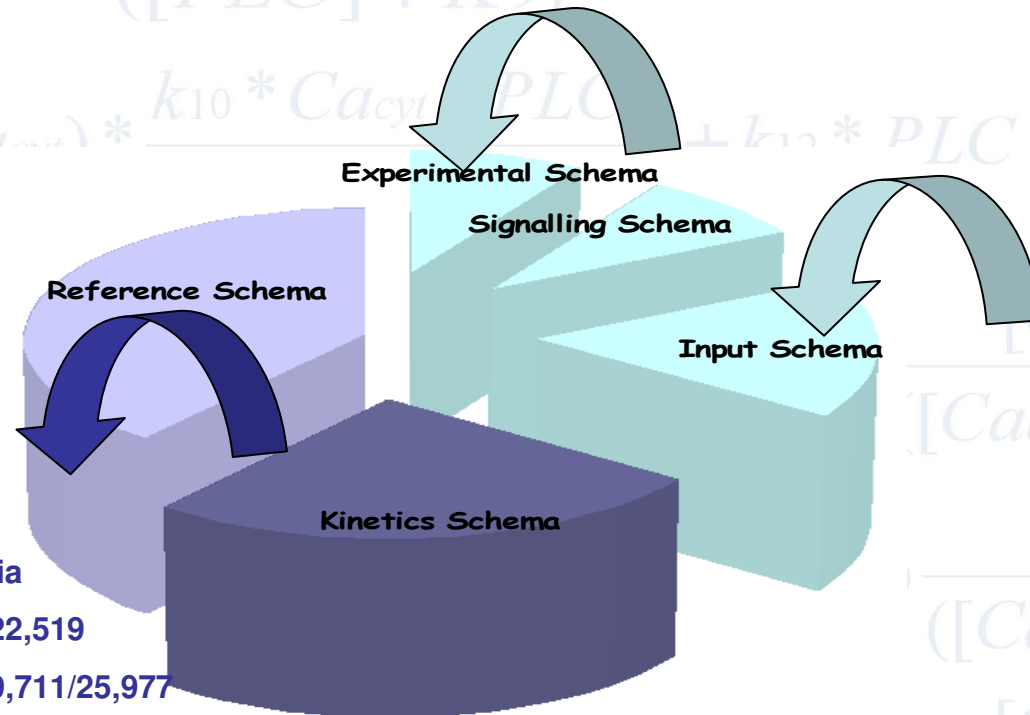
EML
Research

News from the Oracle

Heidrun Sauer-Danzwith

SDBV Group

$$[Ga]' = k_1 + (k_2[Ca_{cyt}]) - k_3 \frac{[Ga][PLC]}{([Ga] + [PLC] + K_9)}$$
$$[Ca_{cyt}]' = (Ca_{ER} - Ca_{cyt}) * \frac{k_{10} * Ca_{cyt} * PLC^4}{PLC^4 + K_{11}^4} + k_{12} * PLC + k_{13} * [Ga] - k_{14} \frac{[Ca_{cyt}]}{([Ca_{cyt}] + K_{15})} - k_{16} \frac{[Ca_{cyt}]}{([Ca_{cyt}] + K_{17})} - k_{18} \frac{[Ca_{cyt}]^n}{([Ca_{cyt}]^n + K_{19}^n)}$$
$$[Ca_{ER}]' = - (Ca_{ER} - Ca_{cyt}) * \frac{k_{10} * Ca_{cyt} * PLC^4}{PLC^4 + K_{11}^4} + k_{16} \frac{[Ca_{cyt}]}{([Ca_{cyt}] + K_{17})}$$
$$[Ca_{Mito}]' = k_{18} \frac{[Ca_{cyt}]^n}{([Ca_{cyt}]^n + K_{19}^n)} - (Ca_{mit} - Ca_{cyt}) * k_{20} \frac{[Ca_{cyt}]}{([Ca_{cyt}] + K_{21})}$$



Search Criteria

- Compound 22,519
- Reaction 9,711/25,977
- Enzyme 3,950
- Protein 2,597
- Pathway 173

$[G_a] + (k_2[G_a]) - k_3 \frac{[G_a][PLC]}{([G_a] + K_4)} - k_5 \frac{[G_a][Ca_{cyt}]}{([G_a] + K_5)}$
 $PLC]' = k_7[G_a] - k_8 \frac{[PLC]}{([PLC] + K_9)}$
 $Ca_{cyt}]' = (Ca_{ER}^p - Ca_{cyt}) * \frac{k_{10} * Ca_{cyt} * PLC}{PLC^4 + K_{11}^4} + k_{12} * PLC + k_{13} * [G_a] - k_{14} \frac{[Ca_{cyt}]^n}{[Ca_{cyt}]^n + K_{19}^n}$
 $Ca_{ER}]' = - (Ca_{ER} - Ca_{cyt}) * \frac{k_{10} * Ca_{cyt} * PLC}{PLC^4 + K_{11}^4} + k_{16} \frac{[Ca_{cyt}]}{([Ca_{cyt}] + K_{17})}$
 $Ca_{Mito}]' = k_{18} \frac{[Ca_{cyt}]^n}{([Ca_{cyt}]^n + K_{19}^n)} - (Ca_{mit} - Ca_{cyt}) * k_{20} \frac{[Ca_{cyt}]}{([Ca_{cyt}] + K_{21})}$

Relations between Schemas

EC Number 1.4.1.3

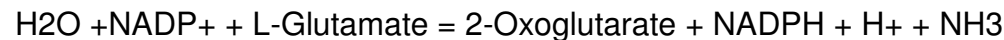
Kinetic Schema

Table REACTION

ID's counted 45



ID's counted 6



Parameter: kcat

Reference Schema

Table REACTION

ID 755

ID 757

1	2	3	4	5	6
-	121,2	399,6	165,3	387,5	43,8

Data Integration and Processing

